

International Masters Of Knowledge

Cambridge Primary Checkpoint Mathematics (0845) Mark Scheme 2020-2006 Paper1 & Paper2

Cambridge Primary Checkpoint

MATHEMATICS

0845/01

Paper 1

April 2020

MARK SCHEME

Maximum Mark: 40

Published

This mark scheme is published as an aid to teachers and learners, to indicate the requirements of the examination. However, we have not been able to adjust it to reflect the full range of answers that would have been seen as a part of the normal moderation and marking process, and it does not necessarily contain all the possible alternatives that might have arisen. Cambridge will not enter into discussions about the mark scheme.

This document has **12** pages. Blank pages are indicated.

General guidance on marking

This section gives general guidelines on marking learner responses that are not specifically mentioned in the mark scheme. **Any guidance specifically given in the mark scheme supersedes this guidance.**

Difference in printing

It is suggested that schools check *their* printed copies for differences in printing that may affect the answers to the questions, for example in measurement questions.

Mark scheme annotations and abbreviations

M1	method mark
A1	accuracy mark
B1	independent mark
FT	follow through after error
dep	dependent
oe	or equivalent
cao	correct answer only
isw	ignore subsequent working
soi	seen or implied

Brackets in mark scheme

When brackets appear in the mark scheme this indicates extra information that is not required for the award of the mark(s).

For example:

A question requiring an answer in grams may have an answer line: grams

The mark scheme will show the word 'grams' in brackets.

Negative numbers

The table shows acceptable and unacceptable versions of the answer -2 .

Accept	Do not accept
-2	$2-$

Number and place value

The table shows various general rules in terms of acceptable decimal answers.

Accept
Accept omission of leading zero if answer is clearly shown, e.g. .675
Accept trailing zeros, unless the question has asked for a specific number of decimal places, e.g. 0.7000
Accept a comma as a decimal point if that is the convention that you have taught the learners, e.g. 0,638

Units

For questions involving quantities, e.g. length, mass, money, duration or time, correct units must be given in the answer. Units are provided on the answer line unless finding the units is part of what is being assessed.

The table shows acceptable and unacceptable versions of the answer 1.85 m.

	Accept	Do not accept
If the unit is given on the answer line, e.g. m	Correct conversions, provided the unit is stated unambiguously, e.g. 185 cm..... m (this is unambiguous since the unit cm comes straight after the answer, voiding the m which is now not next to the answer)	.....185..... m.....1850.....m etc.
If the question states the unit that the answer should be given in, e.g. 'Give your answer in metres'.	1.85 1 m 85 cm	185; 1850; Any conversions to other units, e.g. 185 cm

Money

In addition to the rules for units, the table below gives guidance for answers involving money. The table shows acceptable and unacceptable versions of the answer \$0.30.

	Accept	Do not accept
If the amount is in dollars and cents, the answer should be given to two decimal places	\$0.30 For an integer number of dollars it is acceptable not to give any decimal places, e.g. \$9 or \$9.00	\$0.3 \$09 or \$09.00
If units are not given on the answer line	Any unambiguous indication of the correct amount, e.g. 30 cents; 30 c \$0.30; \$0-30; \$0=30; \$00:30	30 or 0.30 without a unit \$30; 0.30 cents Ambiguous answers, e.g. \$30 cents; \$0.30 c; \$0.30 cents (as you do not know which unit applies because there are units either side of the number)
If \$ is shown on the answer line	All unambiguous indications, e.g. \$.....0.30.....; \$.....0-30.....; \$.....0=30.....; \$.....00:30.....	\$.....30..... Ambiguous answers, e.g. \$.....30 cents.....; \$.....0.30 cents..... unless units on the answer line have been deleted, e.g. \$.....30 cents.....
If cents is shown on the answer line	.....30.....cents	.....0.30.....cents Ambiguous answers, e.g. .....\$30 .....cents; .....\$0.30 .....cents unless units on the answer line have been deleted, e.g. .....\$0.30.....cents

Duration

In addition to the rules for units, the table below gives guidance for answers involving time durations. The table shows acceptable and unacceptable versions of the answer 2 hours and 30 minutes.

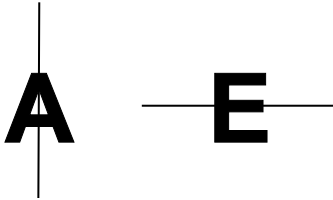
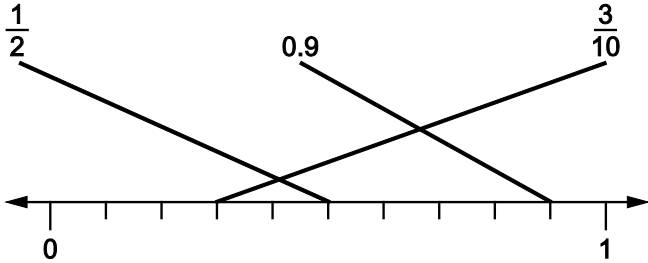
Accept	Do not accept
Any unambiguous indication using any reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs), e.g. 2 hours 30 minutes; 2 h 30 m; 02 h 30 m	Incorrect or ambiguous formats, e.g. 2.30; 2.3; 2.30 hours; 2.30 min; 2 h 3; 2.3 h (this is because this indicates 0.3 of an hour - i.e. 18 minutes - rather than 30 minutes)
Any correct conversion with appropriate units, e.g. 2.5 hours; 150 mins unless the question specifically asks for time given in hours and minutes	02:30 (as this is a 24-hour clock time, not a time interval) 2.5; 150

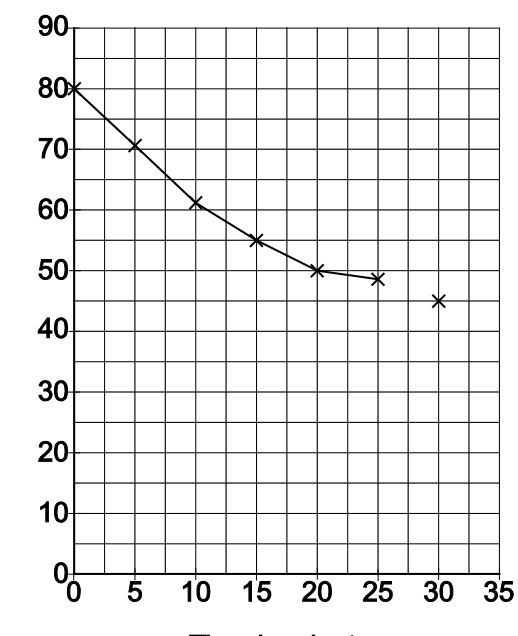
Time


The table below gives guidance for answers involving time. It shows acceptable and unacceptable versions of the answer 07:30.

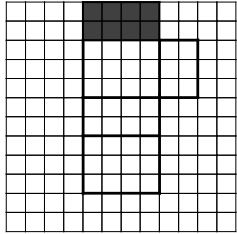
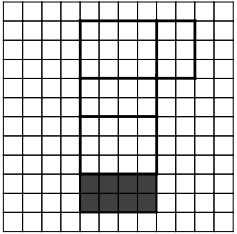
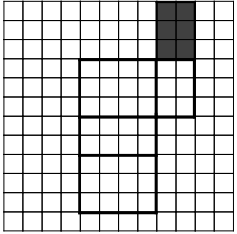
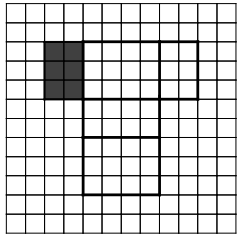
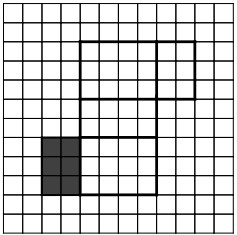
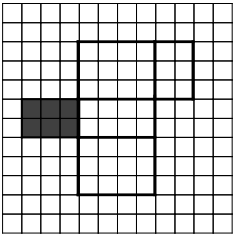
	Accept	Do not accept
If the answer is required in 24-hour format	Any unambiguous indication of correct answer in numbers, words or a combination of the two, e.g. 07:30 with any separator in place of the colon, e.g. 07 30; 07,30; 07-30; 0730	7:30 7:30 am 7 h 30 m 7:3 730 7.30 pm 073 07.3
If the answer is required in 12-hour format	Any unambiguous indication of correct answer in numbers, words or a combination of the two, e.g. 7:30 am with any separator in place of the colon, e.g. 7 30 am; 7.30 am; 7-30 am 7.30 in the morning Half past seven (o'clock) in the morning Accept am or a.m.	Absence of am or pm 1930 am 7 h 30 m 7:3 730 7.30 pm

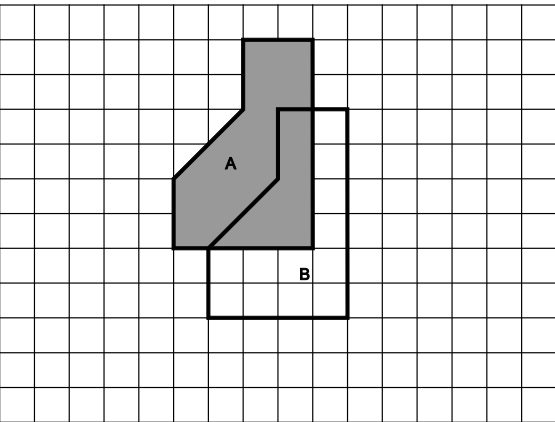
Question	Answer	Marks	Further Information
1	$250 \div 10 = 25 \checkmark$ $15 \times 10 = 1500 \times$ $90 \div 10 = 900 \times$ $12 \times 100 = 1200 \checkmark$	2	Award 2 for all 4 correct.
	3 correct	B1	
2(a)	$\begin{array}{|c|c|} \hline 3 & 2 \\ \hline \end{array} + \begin{array}{|c|c|} \hline 6 & 8 \\ \hline \end{array} = \begin{array}{|c|c|c|} \hline 1 & 0 & 0 \\ \hline \end{array}$	1	
2(b)	$\begin{array}{|c|c|c|} \hline 8 & 5 & 0 \\ \hline \end{array} + \begin{array}{|c|c|c|} \hline 1 & 5 & 0 \\ \hline \end{array} = \begin{array}{|c|c|c|c|} \hline 1 & 0 & 0 & 0 \\ \hline \end{array}$	1	
3	14:25	1	Accept 2:25 pm
4	396 (marbles)	1	
5	5139	1	
6(a)	5 (cm) and 3 (cm)	1	Accept 4.9 to 5.1 for 5 Accept 2.9 to 3.1 for 3
6(b)	16 (cm)	1	Accept correct FT from part (a)

Question	Answer	Marks	Further Information
7	degrees 4	1	Accept ° Accept radians. Both answers must be correct for the mark. Accept recognisable misspellings.
8	14 (km)	1	
9		1	Accept some inaccuracy in lines provided intention is clear. Both answers must be correct for the mark.
10		1	Award 1 mark for all 3 lines correct. Allow mark if the positions on the number line are correctly labelled with $\frac{1}{2}$, 0.9, $\frac{3}{10}$
11	(3, 6)	1	Correct order only.

Question	Answer	Marks	Further Information
12	Angelique circled and an explanation that $50\% = 25$ out of 50 or $60\% = 30$ out of 50	1	Both parts of the answer must be correct for the award of the mark.
13(a)	25 (°C)	1	
13(b)	<p style="text-align: center;">Graph to show the temperature of a cup of tea</p>  <p style="text-align: center;">Temperature in °C</p> <p style="text-align: center;">Time in minutes</p>	1	Last two points do not need to be joined for 1 mark.

Question	Answer	Marks	Further Information
14	$32 \times 20 = 640$ $640 - 32 = 608$	2	The working and answer must be shown for 2 marks.
	For correct working without the answer.	M1	Award only one of these.
	Answer only or correct answer using long multiplication.	B1	
	Correct method containing arithmetic errors, for example: $(32 \times 20) - 32 = \text{wrong answer.}$	M1	
15	24 (students)	1	
16(a)	24 and 309	1	Both answers must be correct for 1 mark. Do not allow 10, 10, 4 or 100, 100, 100, 9
16(b)		1	Accept any arrangement of the correct symbols.
17	0 and 8	1	Both digits must be correct for the award of the mark.
18	115.18	1	
19(a)	51 (c)	1	
19(b)	Hassan	1	

Question	Answer	Marks	Further Information
20	<div style="display: flex; align-items: center; gap: 10px;"> 196 574 1144 728 1026 </div>	1	All 3 must be circled and no others for 1 mark.
21	8 24 12	2	Award 2 marks for all 3 correct.
	2 correct	B1	
22	<p>One from</p> <div style="display: flex; justify-content: space-around; align-items: center;">    </div> <p>And one from</p> <div style="display: flex; justify-content: space-around; align-items: center;">    </div>	2	Correct 4 by 2 face. Accept any one of these answers. Correct 2 by 3 face. Accept any one of these answers.
	One face correct	B1	

Question	Answer	Marks	Further Information												
23	Any two from: $50 \times 60 = 3000$ or $60 \times 50 = 3000$ $50 \times 80 = 4000$ or $80 \times 50 = 4000$ $50 \times 20 = 1000$ or $20 \times 50 = 1000$	2	Condone correct 3-digit by 2-digit answers, e.g. $120 \times 50 = 6000$												
24	<table border="1" data-bbox="472 528 1003 847"> <thead> <tr> <th>Calculation</th> <th>Decimal</th> <th>Mixed number</th> </tr> </thead> <tbody> <tr> <td>$13 \div 2$</td> <td>6.5</td> <td>$6\frac{1}{2}$</td> </tr> <tr> <td>$32 \div 5$</td> <td>6.4</td> <td>$6\frac{2}{5}$ or $6\frac{4}{10}$</td> </tr> <tr> <td>$23 \div 4$</td> <td>5.75</td> <td>$5\frac{3}{4}$</td> </tr> </tbody> </table>	Calculation	Decimal	Mixed number	$13 \div 2$	6.5	$6\frac{1}{2}$	$32 \div 5$	6.4	$6\frac{2}{5}$ or $6\frac{4}{10}$	$23 \div 4$	5.75	$5\frac{3}{4}$	2	Award 2 marks for all 4 answers correct.
Calculation	Decimal	Mixed number													
$13 \div 2$	6.5	$6\frac{1}{2}$													
$32 \div 5$	6.4	$6\frac{2}{5}$ or $6\frac{4}{10}$													
$23 \div 4$	5.75	$5\frac{3}{4}$													
25		1	The diagram must be sufficiently accurate for the intention to be clear.												

Question	Answer			Marks	Further Information
26	0.5 (litres)			1	Allow half a litre or equivalent. Do not accept answers in ml.
27		Multiple of 8	Not a multiple of 8	2	Award 2 marks for 4 numbers correctly placed.
	Multiple of 6	72	42		
	Not a multiple of 6	32	52 62	B1	Award 1 mark for 3 numbers correctly placed.
28	102 mm, 10.4 cm, 0.12 m, 125 mm			1	Accept: 102 mm, 104 mm, 120 mm, 125 mm or equivalent. Accept answers without units.

Cambridge Primary Checkpoint

MATHEMATICS

0845/02

Paper 2

April 2020

MARK SCHEME

Maximum Mark: 40

Published

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For example:

A question requiring an answer in grams may have an answer line: grams

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The table shows acceptable and unacceptable versions of the answer -2 .

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-2	$2-$

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The table shows various general rules in terms of acceptable decimal answers.

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Accept omission of leading zero if answer is clearly shown, e.g. .675
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For questions involving quantities, e.g. length, mass, money, duration or time, correct units must be given in the answer. Units are provided on the answer line unless finding the units is part of what is being assessed.

The table shows acceptable and unacceptable versions of the answer 1.85 m.

	Accept	Do not accept
If the unit is given on the answer line, e.g. m	Correct conversions, provided the unit is stated unambiguously, e.g. .....185 cm..... m (this is unambiguous since the unit cm comes straight after the answer, voiding the m which is now not next to the answer)	.....185..... m.....1850.....m etc.
If the question states the unit that the answer should be given in, e.g. 'Give your answer in metres'	1.85 1 m 85 cm	185; 1850 Any conversions to other units, e.g. 185 cm

Money

In addition to the rules for units, the table below gives guidance for answers involving money. The table shows acceptable and unacceptable versions of the answer \$0.30

	Accept	Do not accept
If the amount is in dollars and cents, the answer should be given to two decimal places	\$0.30 For an integer number of dollars it is acceptable not to give any decimal places, e.g. \$9 or \$9.00	\$0.3 \$09 or \$09.00
If units are not given on the answer line	Any unambiguous indication of the correct amount, e.g. 30 cents; 30 c \$0.30; \$0-30; \$0=30; \$00:30	30 or 0.30 without a unit \$30; 0.30 cents Ambiguous answers, e.g. \$30 cents; \$0.30c; \$0.30 cents (as you do not know which unit applies because there are units either side of the number)
If \$ is shown on the answer line	All unambiguous indications, e.g. \$.....0.30.....; \$.....0-30.....; \$.....0=30.....; \$.....00:30.....	\$.....30..... Ambiguous answers, e.g. \$.....30 cents.....; \$.....0.30 cents..... unless units on the answer line have been deleted, e.g. \$.....30 cents.....
If cents is shown on the answer line	.....30.....cents	.....0.30.....cents Ambiguous answers, e.g. .....\$30 .....cents; .....\$0.30 .....cents unless units on the answer line have been deleted, e.g. .....\$0.30.....cents

Duration

In addition to the rules for units, the table below gives guidance for answers involving time durations. The table shows acceptable and unacceptable versions of the answer 2 hours and 30 minutes.

Accept	Do not accept
Any unambiguous indication using any reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs), e.g. 2 hours 30 minutes; 2 h 30 m; 02 h 30 m	Incorrect or ambiguous formats, e.g. 2.30; 2.3; 2.30 hours; 2.30 min; 2 h 3; 2.3 h (this is because this indicates 0.3 of an hour – i.e. 18 minutes – rather than 30 minutes)
Any correct conversion with appropriate units, e.g. 2.5 hours; 150 mins unless the question specifically asks for time given in hours and minutes	02:30 (as this is a 24-hour clock time, not a time interval) 2.5; 150

Time

The table below gives guidance for answers involving time. It shows acceptable and unacceptable versions of the answer 07:30

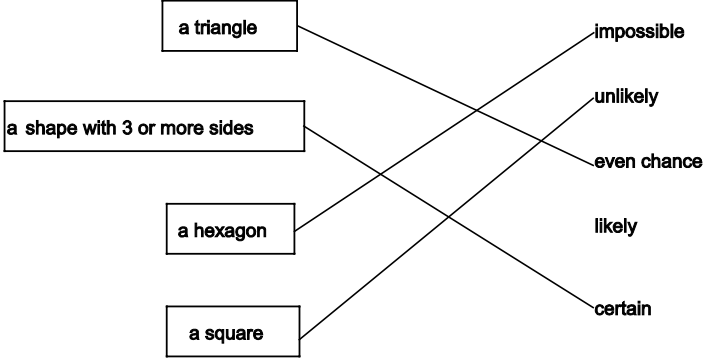
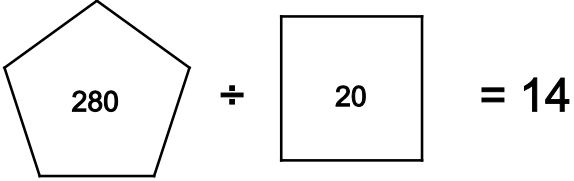
	Accept	Do not accept
If the answer is required in 24-hour format	Any unambiguous indication of correct answer in numbers, words or a combination of the two, e.g. 07:30 with any separator in place of the colon, e.g. 07 30; 07,30; 07-30; 0730	7:30 7:30 am 7 h 30 m 7:3 730 7.30 pm 073 07.3
If the answer is required in 12-hour format	Any unambiguous indication of correct answer in numbers, words or a combination of the two, e.g. 7:30 am with any separator in place of the colon, e.g. 7 30 am; 7.30 am; 7-30 am 7.30 in the morning Half past seven (o'clock) in the morning Accept am or a.m.	Absence of am or pm 1930 am 7 h 30 m 7:3 730 7.30 pm


Question	Answer	Marks	Further Information
1	20 (June)	1	June not needed.
2	$\frac{1}{2}$ and 0.5	1	Both answers must be given for the mark.
3	$\begin{array}{|c|c|c|} \hline 4 & 4 & 5 \\ \hline \end{array} + \begin{array}{|c|c|c|} \hline 5 & 5 & 5 \\ \hline \end{array} = 1000$ <p>or</p> $\begin{array}{|c|c|c|} \hline 4 & 5 & 5 \\ \hline \end{array} + \begin{array}{|c|c|c|} \hline 5 & 4 & 5 \\ \hline \end{array} = 1000$ <p>or</p> $\begin{array}{|c|c|c|} \hline 5 & 5 & 5 \\ \hline \end{array} + \begin{array}{|c|c|c|} \hline 4 & 4 & 5 \\ \hline \end{array} = 1000$ <p>or</p> $\begin{array}{|c|c|c|} \hline 5 & 4 & 5 \\ \hline \end{array} + \begin{array}{|c|c|c|} \hline 4 & 5 & 5 \\ \hline \end{array} = 1000$	1	

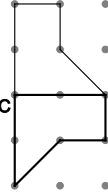
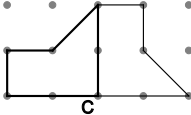
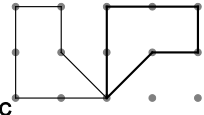
Question	Answer	Marks	Further Information
4		1	The diagram must be sufficiently accurate for the intention to be clear.
5		2	All four symbols correctly placed.
6	6005 <input checked="" type="checkbox"/> 6500 <input type="checkbox"/> 7055 <input checked="" type="checkbox"/> 7905 <input type="checkbox"/>	B1	2 or 3 symbols correctly placed
6		1	Do not accept any additional ticks. Accept any other clear indication of the correct answer.

Question	Answer	Marks	Further Information
7	20	1	
8	09:30 or 21:30 and 01:50 or 13:50	1	Both answers must be correct for 1 mark. Accept 9:30 1:50 Ignore any references to am and pm.
9	8250	1	Award 1 mark for any number from 8000 to 8500 inclusive.
10	433 112	1	
11	3 hundreds 3 hundredths 3 tens 3 tenths 3 units	1	
12	66 (°)	1	
13	73 (mm)	1	Accept 71-75 (mm) inclusive. Do not accept 7.3 cm.

Question	Answer	Marks	Further Information
14	<div style="display: flex; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">even + even + even =</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">odd – even – even =</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">even – odd + odd =</div> <div style="border: 1px solid black; padding: 5px;">odd + odd + odd =</div> <div style="margin-left: 20px;"> <p>even</p> <p>odd</p> </div> </div>	2	All four lines must be correct for 2 marks.
	3 correct	B1	
15	Monday	1	
16	170 + 85 + 17 + 17 = 289 Correct numbers with wrong total or Correct numbers without a total	2	Accept numbers in any order.
		B1	

Question	Answer	Marks	Further Information														
17		2	All four correct for 2 marks.														
	2 or 3 joined correctly.	B1															
18	<table border="1" data-bbox="539 804 1308 1078"> <thead> <tr> <th data-bbox="539 804 736 863">Number</th> <th data-bbox="736 804 1308 863">Factors</th> </tr> </thead> <tbody> <tr> <td data-bbox="539 863 736 938"></td> <td data-bbox="736 863 1308 938"></td> </tr> <tr> <td data-bbox="539 938 736 1007"></td> <td data-bbox="736 938 1308 1007"> <table border="1" data-bbox="748 948 1296 999"> <tr> <td>1</td> <td>2</td> <td>3</td> <td>6</td> <td>9</td> <td>18</td> </tr> </table> </td> </tr> <tr> <td data-bbox="539 1007 736 1078">12</td> <td data-bbox="736 1007 1308 1078"></td> </tr> </tbody> </table>	Number	Factors				<table border="1" data-bbox="748 948 1296 999"> <tr> <td>1</td> <td>2</td> <td>3</td> <td>6</td> <td>9</td> <td>18</td> </tr> </table>	1	2	3	6	9	18	12		2	Accept correct factors in any order.
Number	Factors																
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1	2	3	6	9	18												
12																	
	one correct row	B1															
19		1															

Question	Answer	Marks	Further Information
20(a)		1	Allow arrow at -26 if scale extended correctly.
20(b)	-16	1	Do not accept 16-
21	$16 \text{ (cm}^2\text{)}$	1	
22	$2 \times 5 \times 11$	1	Award 1 mark for all three numbers in any order.

Question	Answer	Marks	Further Information
23		2	Accept slight inaccuracies in the drawing.
	<p>Rotation about the correct point but anticlockwise, i.e.:</p> 	B1	Award only 1 of these.
	<p>Rotation of 90° but about the wrong point, e.g.:</p> 	B1	

Question	Answer	Marks	Further Information
24	2 2 3 4 6 or 2 2 2 5	2	Numbers can be in any order.
	The cards have a mode of 2	B1	Award only 1 of these.
	The cards have a range of 4	B1	
25	$1\frac{2}{5}$	1	Accept equivalent mixed numbers. Do not accept improper fractions.
26	(\$) 11.52	2	
	Sight of (\$) 7.56 or (\$) 3.96	B1	Award only 1 of these.
	A correct method containing any number of arithmetic errors. e.g. $60 \div 10 \times (\$)1.26 + 60 \div 15 \times (\$)0.99$	M1	

Question	Answer	Marks	Further Information								
27	<table border="1"> <thead> <tr> <th>Fraction</th> <th>Simplest form</th> </tr> </thead> <tbody> <tr> <td>$\frac{16}{20}$</td> <td>$\frac{4}{5}$</td> </tr> <tr> <td>$\frac{6}{20}$</td> <td>$\frac{3}{10}$</td> </tr> <tr> <td>$\frac{15}{20}$</td> <td>$\frac{3}{4}$</td> </tr> </tbody> </table>	Fraction	Simplest form	$\frac{16}{20}$	$\frac{4}{5}$	$\frac{6}{20}$	$\frac{3}{10}$	$\frac{15}{20}$	$\frac{3}{4}$	2	
Fraction	Simplest form										
$\frac{16}{20}$	$\frac{4}{5}$										
$\frac{6}{20}$	$\frac{3}{10}$										
$\frac{15}{20}$	$\frac{3}{4}$										
	Two correct	B1									
28	$\textcircled{2}$ $\textcircled{4\frac{2}{3}}$ 5 $6\frac{1}{3}$ $\textcircled{10}$	1									
29	1.5 miles 3200 m 6.4 km 4.5 miles	1	Accept answers without units. Accept answers converted to same units i.e.: 2.4 km, 3.2 km, 6.4 km, 7.2 km or 1.5 miles, 2 miles, 4 miles, 4.5 miles								

Question	Answer	Marks	Further Information
30	An explanation that shows the answer is divided by 100 , e.g. <ul style="list-style-type: none">• $138 \div 100 = (1.38)$• divide by 100	1	The answer 1.38 is not required. Do not accept 1.38 without a correct explanation. Do not accept an explanation which involves moving the decimal point.

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MATHEMATICS**0845/01**

Paper 1

April 2019

MARK SCHEME

Maximum Mark: 40

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Markers were instructed to award marks. It does not indicate the details of the discussions that took place at an Markers' meeting before marking began, which would have considered the acceptability of alternative answers.


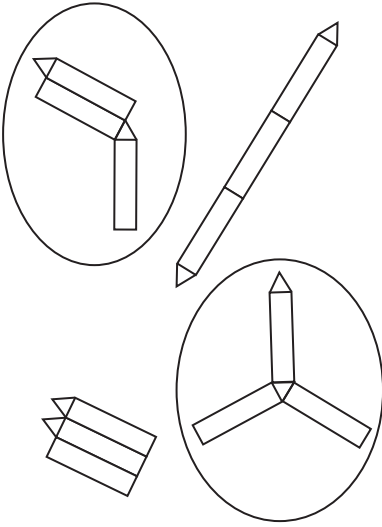
Mark schemes should be read in conjunction with the question paper and the End of Series Report.

Cambridge will not enter into discussions about these mark schemes.

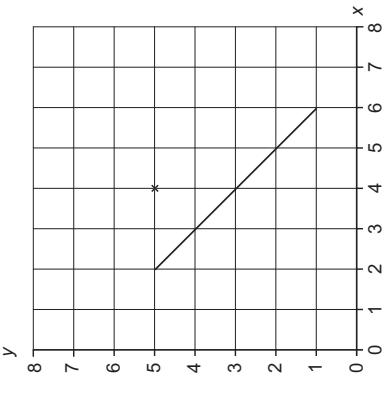
Mark scheme annotations and abbreviations

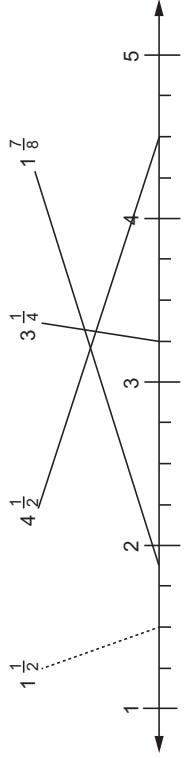
M1	method mark
A1	accuracy mark
B1	independent mark
FT	follow through after error
dep	dependent
oe	or equivalent
cao	correct answer only
isw	ignore subsequent working
soi	seen or implied

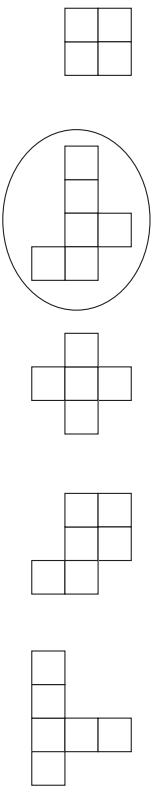
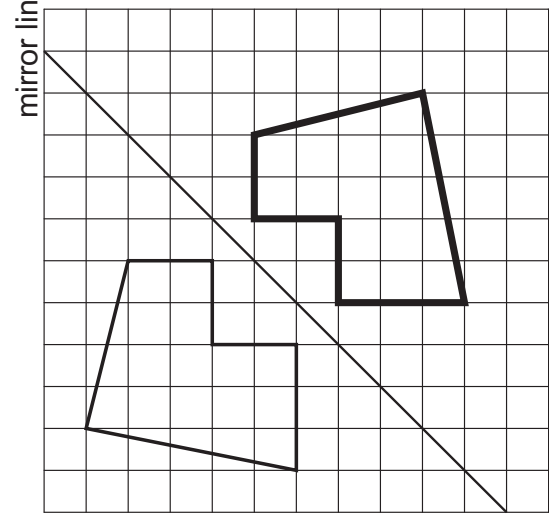
This document consists of **6** printed pages.

Question	Answer	Marks	Further Information											
1(a)	8 (people)	1												
1(b)		1	Accept inaccuracies in drawing half face provided intention is clear.											
2	66	1												
3	3630 640	1	Both required.											
4	2409	1												
5		1	Allow alternative unambiguous indications of the correct answers.											
6	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>9</td><td>1</td><td>3</td><td>-</td><td>5</td><td>8</td><td>6</td><td>=</td><td>3</td><td>2</td><td>7</td></tr> </table> Any 2 boxes correct.	9	1	3	-	5	8	6	=	3	2	7	2	All 3 boxes correct.
9	1	3	-	5	8	6	=	3	2	7				
7	4	B1												
8	Any two from 125 215 305	1												

Question	Answer	Marks	Further Information									
9	$\boxed{-2} \xrightarrow{+17} \boxed{15} \xrightarrow{+17} \boxed{32} \xrightarrow{+17} \boxed{49} \xrightarrow{+17} \boxed{66}$	2	All 3 correct Do not accept 2–									
	Two correct answers or –2 correct.											
10	16.8 (km)	1										
11	–3 (°C)	1	Do not accept 3–									
12	<table border="1"> <thead> <tr> <th></th> <th>multiples of 5</th> <th>not multiples of 5</th> </tr> </thead> <tbody> <tr> <td>square numbers</td> <td>25</td> <td>16 36</td> </tr> <tr> <td>not square numbers</td> <td>20 30</td> <td>27</td> </tr> </tbody> </table>		multiples of 5	not multiples of 5	square numbers	25	16 36	not square numbers	20 30	27	2	All 5 correct.
		multiples of 5	not multiples of 5									
square numbers	25	16 36										
not square numbers	20 30	27										
Two or more correct answers.												
		B1										

Question	Answer	Marks	Further Information
13(a)		1	Accept any clear indication of correct answer. Shape drawn with vertex at (4, 5) implies correct answer.
13(b)	(6, 3)	1	Do not accept (3, 6) If the point given in (b) forms a trapezium with one line of symmetry with <i>their</i> (a) then award follow through mark. If (a) is plotted incorrectly then do not award (6, 3) for (b).
14	1800 (pens)	1	
15	460 3.5(0) 0.35	1	All three answers must be correct for the award of the mark.
16	14 (hours) 52 (minutes)	1	Do not accept 892 minutes
17(a)	200010	1	
17(b)	999 900	1	

Question	Answer	Marks	Further Information
18(a)	4	1	
18(b)	3	1	
19	Award 2 marks for all 3 joined correctly 	2	All 3 correctly joined. Small discrepancy allowed if intention is clear.
20	Two correct answers. 53 (°)	B1	
21	$6.2 + \boxed{3}.\boxed{8} = 10$ $10 - \boxed{5}.\boxed{3} = 4.\boxed{7}$ $7.\boxed{6} + \boxed{2}.\boxed{4} = 10$	2	All 3 calculations must be correct for 2 marks.
22(a)	Any two calculations correct. June, July and August.	B1	
22(b)	April.	1	Accept the months in any order.
23	25 (squares)	1	Do not accept A. Accept any answer between 24 and 26 squares inclusive.
24	6.4	1	

Question	Answer	Marks	Further Information
25		1	Accept any clear indication of correct answer.
26		1	Accept slight inaccuracies in the drawing provided the intention is clear. [Note the grid in the answer booklet extends further to the right]
27	24 (cherries)	1	
28	296 (km)	2	
	A correct method containing any number of arithmetic errors: $185 \div 5 \times 8$	M1	
29	400 4000 40 000 400 000	1	Accept any clear indication of the correct answer.

MATHEMATICS**0845/02**

Paper 2

April 2019

MARK SCHEME

Maximum Mark: 40

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Markers were instructed to award marks. It does not indicate the details of the discussions that took place at an Markers' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the End of Series Report.

Cambridge will not enter into discussions about these mark schemes.

Mark scheme annotations and abbreviations

M1	method mark
A1	accuracy mark
B1	independent mark
FT	follow through after error
dep	dependent
oe	or equivalent
cao	correct answer only
isw	ignore subsequent working
soi	seen or implied

This document consists of **8** printed pages.

Question	Answer	Marks	Further Information										
1		1	Accept numbers in the range 330–350 exclusive.										
2	<table border="1"> <tr> <td>426</td> <td>371</td> <td>469</td> <td>770</td> <td>432</td> </tr> <tr> <td>child</td> <td>adult</td> <td>adult</td> <td>child</td> <td>child</td> </tr> </table>	426	371	469	770	432	child	adult	adult	child	child	1	All four answers must be correct to gain the mark. Accept use of A for adult and C for child.
426	371	469	770	432									
child	adult	adult	child	child									
3	17	1											
4		1	Both correct for 1 mark. Accept any clear indication of the line of symmetry. Do not accept additional incorrect lines.										
5	2 (pens)	1											
6	127 (coins)	1											
7(a)	12	1											
7(b)	7	1	Accept 19 – their answer to (a).										

Question	Answer	Marks	Further Information
8	Minimum acceptable $6 \times 8 (= 48)$ and $5 \times 2 (= 10)$	1	Accept responses that show that the multiplication can be done in any order. This must include the 6×8 and 5×2 . Do not accept calculations without showing that the order of multiplication can be changed. Do not accept an explanation showing that $6 \times 5 \times 8 \times 2 = 480$ and $48 \times 10 = 480$ without explaining why $6 \times 5 \times 8 \times 2$ and 48×10 are equal.
9	Rectangle $8 \times 1, 7 \times 2, 6 \times 3$ or 5×4	1	The rectangle must be within the grid.
10	First statement must have 2 and 4 Second statement must have 1 and 6 i.e. $\frac{1}{\boxed{2}} = \frac{\boxed{4}}{8} \quad \text{or} \quad \frac{1}{\boxed{4}} = \frac{\boxed{2}}{8}$ and $\frac{\boxed{1}}{3} = \frac{2}{\boxed{6}} \quad \text{or} \quad \frac{\boxed{6}}{3} = \frac{2}{\boxed{1}}$	1	Four correct boxes for one mark.
11	C	1	Do not accept a coordinate as the answer.

Question	Answer	Marks	Further Information																																			
12	17 x 23	1																																				
13(a)	<table border="1"> <thead> <tr> <th>Club</th> <th>Won</th> <th>Drew</th> <th>Lost</th> <th>Points</th> </tr> </thead> <tbody> <tr> <td>Durford</td> <td>40</td> <td>3</td> <td>17</td> <td>83</td> </tr> <tr> <td>Warham</td> <td>37</td> <td>5</td> <td>18</td> <td>79</td> </tr> <tr> <td>Carsea</td> <td>39</td> <td>5</td> <td>16</td> <td>83</td> </tr> <tr> <td>Londis</td> <td>8</td> <td>2</td> <td>50</td> <td>18</td> </tr> <tr> <td>Robridge</td> <td>12</td> <td>3</td> <td>45</td> <td>27</td> </tr> <tr> <td>Oxton</td> <td>33</td> <td>4</td> <td>23</td> <td>70</td> </tr> </tbody> </table>	Club	Won	Drew	Lost	Points	Durford	40	3	17	83	Warham	37	5	18	79	Carsea	39	5	16	83	Londis	8	2	50	18	Robridge	12	3	45	27	Oxton	33	4	23	70	1	All 3 answers must be correct for 1 mark.
Club	Won	Drew	Lost	Points																																		
Durford	40	3	17	83																																		
Warham	37	5	18	79																																		
Carsea	39	5	16	83																																		
Londis	8	2	50	18																																		
Robridge	12	3	45	27																																		
Oxton	33	4	23	70																																		
13(b)	Warham	1	Do not accept an answer of 18																																			
14	0.04 5% 20% $\frac{3}{10}$ $\frac{1}{2}$ (0.04 0.05 0.2 0.3 0.5) 0.04 $\frac{1}{2}$ or $\frac{1}{2}$ $\frac{3}{10}$ 20% 5% 0.04	2	Accept equivalent forms of the answer.																																			
15	28 (cm ²)	1	Accept for 1 mark the smallest and largest in correct position or Ordered from largest to smallest with or without changing the wording under the lines.																																			

Question	Answer	Marks	Further Information	
16	7 (days)	2		
	A complete, correct method containing arithmetical errors: $\frac{124.60 - 16.60}{9 \times 2} + 1$ or An answer of 6 using the correct working $\frac{124.60 - 16.60}{9 \times 2}$			
17	(Safia) Aiko, Hassan, Rajiv	1	All names must be correctly placed for the award of the mark. Allow (Safia) 5.36 km, 5.3 km, 5.06 km Allow (Safia), A, H, R.	
18		2	Accept T for true and F for false or any other unambiguous form of the correct answer.	
				True or False
	There are 188 hours in a week.			false
	There are 900 seconds in 15 minutes.			true
	There are 744 hours in May.			true
There are 578 months in 49 years.	false			
Three correct answers.		B1		

Question	Answer	Marks	Further Information
19		2	
	Two or three correct answers.	B1	
20(a)	40	1	
20(b)	60	1	
21	$\frac{1}{3}$	1	The only acceptable answer. Do not accept 8/24
22(a)	Writing	1	
22(b)	68	1	
23	15 (oranges)	1	
24	37 and 11 or 1 and 407	1	Answers can be given in either order.
25	13 500 (children)	2	Do not accept 45% as answer.
	A correct method containing any number of arithmetic errors: 45% of 30 000 with or without an answer or 30 000 – (30% + 25%) of 30 000	M1	Just 45% alone is not enough for 1 mark.

Question	Answer	Marks	Further Information
26	\$237.60 or 23760c	2	Accept c or cents. Accept other standard monetary units, e.g. €.
	a correct method but with arithmetic errors e.g.: 18 × 24 × 55 or 18 × 24 × 0.55	M1	
	237.6 with no units or 237.60 with no units or 23 760 with no units	B1	
27	93	1	
28	59	1	

Question	Answer	Marks	Further Information
29		1	
30	4.5 (metres)	1	Accept equivalent answers.



Cambridge Assessment International Education
Cambridge Primary Checkpoint

MATHEMATICS

0845/01

Paper 1

October 2019

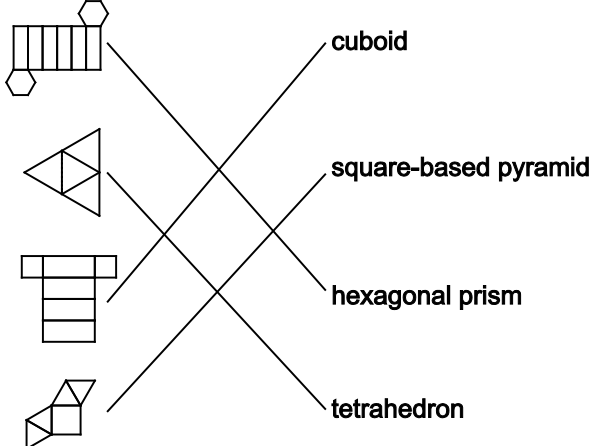
MARK SCHEME

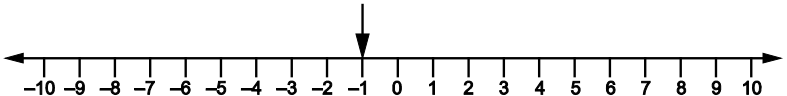
Maximum Mark: 40

Published

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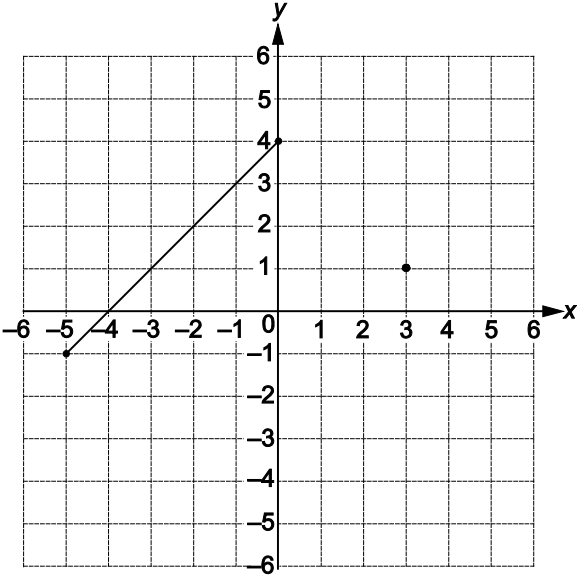
Mark schemes should be read in conjunction with the question paper and the End of Series Report. Cambridge will not enter into discussions about these mark schemes.

Question	Answer	Marks	Further Information
1	tennis	1	Accept any clear indication.
2	m km cm mm	1	
3		2	4 correct lines.
	2 or 3 correct lines.	B1	
4	40×6 or 60×4	1	
5	-6 and 39	1	Both answers are required for the award of the mark. Do not accept 6-
6	505	1	Accept numbers in the range 503 to 507 inclusive.

Question	Answer	Marks	Further Information
7	$\boxed{6} \times \boxed{4} = \boxed{24}$ $\boxed{24} \div \boxed{4} = \boxed{6}$ $\boxed{24} \div \boxed{6} = \boxed{4}$	1	Accept the answers in any order. Do not accept $4 \times 6 = 24$ (given)
8	8 (marbles)	1	
9	7251	1	
10	177 (km)	1	
11	 <p>A horizontal number line with arrows at both ends, labeled from -10 to 10. An arrow points down to the tick mark for -1.</p>	1	Arrow pointing to -1 Accept any clear indication. Accept slight deviation so long as the intention is clear.
12(a)	15.6	1	
12(b)	4.8	1	
13	(4) tenths (2) tens (5) hundredths	1	All 3 answers must be correct for 1 mark. Allow reasonable incorrect spelling provided the intention is clear but not e.g. hundreds for hundredths.

Question	Answer	Marks	Further Information																
14	20:17 or 8:17 pm	1	Do not accept 8:17																
15	32	1																	
16	$306 \div 8 = 38.25$ or 38 remainder 2 arithmetic must be correct or e.g. show $38 \times 8 = 304$ (not 306)	1	Do not accept $82\ 306 \div 8 = 10\ 288$ remainder 2 or 10288.25 Allow any answer where $306 \div 8$ is quantified correctly.																
17		2	All 3 letters must be in the correct place.																
	2 correct.	B1																	
18	<table border="1" style="display: inline-table; margin-right: 20px;"> <tr> <td>3.8</td> <td style="border: 2px solid black; border-radius: 50%;">4.4</td> <td>7.2</td> <td style="border: 2px solid black; border-radius: 50%;">5.6</td> </tr> <tr> <td>6.6</td> <td>5.4</td> <td>6.2</td> <td>2.4</td> </tr> </table> or <table border="1" style="display: inline-table;"> <tr> <td style="border: 2px solid black; border-radius: 50%;">3.8</td> <td>4.4</td> <td>7.2</td> <td>5.6</td> </tr> <tr> <td>6.6</td> <td>5.4</td> <td style="border: 2px solid black; border-radius: 50%;">6.2</td> <td>2.4</td> </tr> </table>	3.8	4.4	7.2	5.6	6.6	5.4	6.2	2.4	3.8	4.4	7.2	5.6	6.6	5.4	6.2	2.4	1	
3.8	4.4	7.2	5.6																
6.6	5.4	6.2	2.4																
3.8	4.4	7.2	5.6																
6.6	5.4	6.2	2.4																
19	9.08	1																	

Question	Answer	Marks	Further Information								
20	<table border="1"> <thead> <tr> <th>Number</th> <th>Factor between 4 and 10</th> </tr> </thead> <tbody> <tr> <td>45</td> <td>5 or 9</td> </tr> <tr> <td>49</td> <td>7</td> </tr> <tr> <td>54</td> <td>6 or 9</td> </tr> </tbody> </table>	Number	Factor between 4 and 10	45	5 or 9	49	7	54	6 or 9	2	Accept multiple answers provided they are correct, e.g. 5 and 9
	Number	Factor between 4 and 10									
45	5 or 9										
49	7										
54	6 or 9										
2 correct rows.	B1										
21	Any answer in the range $8\frac{1}{2}$ (squares) to $10\frac{1}{4}$ (squares) inclusive.	1									
22	108 (cm ²)	1									
23	<table border="1"> <tbody> <tr> <td>1.24 m</td> <td>124 cm</td> </tr> <tr> <td>3.165 kg</td> <td>3165 (g)</td> </tr> <tr> <td>4.2 l</td> <td>4200 (ml)</td> </tr> <tr> <td>27.3 (cm)</td> <td>273 mm</td> </tr> </tbody> </table>	1.24 m	124 cm	3.165 kg	3165 (g)	4.2 l	4200 (ml)	27.3 (cm)	273 mm	2	Award 2 marks for three correct answers. Allow consistent use of comma as decimal point within this question.
	1.24 m	124 cm									
3.165 kg	3165 (g)										
4.2 l	4200 (ml)										
27.3 (cm)	273 mm										
Any two boxes completed correctly.	B1										

Question	Answer	Marks	Further Information
24	226.8 (g)	1	
25	55	1	Do not allow 60–5 or 5 to 60 without evaluation.
26(a)		1	
26(b)	(-2, -4)	1	The coordinates must be in the correct order. Allow F.T. if point given forms a rectangle with point plotted for part (a).

Question	Answer	Marks	Further Information
27	221 and an explanation that shows how the total of 13 can be made, using only the given number facts, for example: <ul style="list-style-type: none"> • $8 + 4 + 1 = 13$ • $4 + 4 + 4 + 1 = 13$ or an explanation that uses only given totals , for example: <ul style="list-style-type: none"> • $136 + 68 + 17$ • $68 + 68 + 68 + 17$ Do not accept repeated addition of 17	2	Do not allow $13 \times 17 = 221$ Do not allow any calculation which does not use the given facts.
	Correct method without an answer or with an error in the final calculation. e.g. $(1 \times 17) + (4 \times 17) + (8 \times 17) =$ no answer or error			M1
28(a)	0.75 or 0.5 or 0.25	1	Allow multiple correct answers.
28(b)	-0.25	1	
29	130 (krone)	1	

Question	Answer	Marks	Further Information
30	44 (cents)	2	Accept \$0.44 for 2 marks.
	A correct method containing any number of arithmetic errors. e.g. $(10 - 7.36) \div 6$ and convert to cents	M1	Accept, as evidence of an appropriate method, 0.44 (cents).
	A correct method with no arithmetic errors but incorrectly converted.	M1	
31	Ticks No and shows that $0.3 = \frac{3}{10}$ not $\frac{1}{3}$ or $\frac{1}{3} = 0.3333$ not 0.3 or shows that $3 \times 0.3 = 0.9$ and $3 \times \frac{1}{3} = 1$ or $0.3 = \frac{3}{10} = \frac{9}{30}$ and $\frac{1}{3} = \frac{10}{30}$	1	Accept 30% for $\frac{3}{10}$. Accept $33\frac{1}{3}\%$ for $\frac{1}{3}$. Acceptable answers must contain comparison of $\frac{1}{3}$ and 0.3 not just an evaluation of one.



Cambridge Assessment International Education
Cambridge Primary Checkpoint

MATHEMATICS

0845/02

Paper 2

October 2019

MARK SCHEME

Maximum Mark: 40

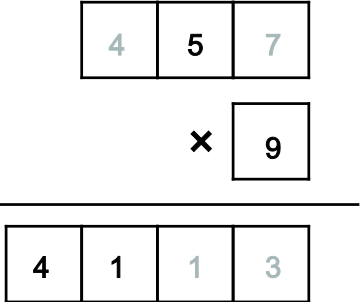
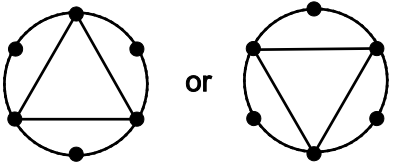
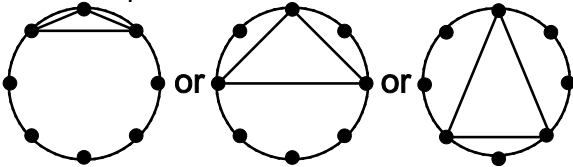
Published

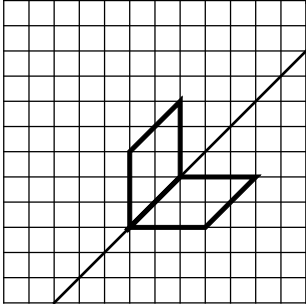
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Mark schemes should be read in conjunction with the question paper and the End of Series Report. Cambridge will not enter into discussions about these mark schemes.

Question	Answer	Marks	Further Information												
1(a)	8 (students)	1													
1(b)	<table border="1"> <caption>Data for Question 1(b) Bar Chart</caption> <thead> <tr> <th>Animal</th> <th>Number of students</th> </tr> </thead> <tbody> <tr> <td>elephant</td> <td>8</td> </tr> <tr> <td>tiger</td> <td>12</td> </tr> <tr> <td>lion</td> <td>20</td> </tr> <tr> <td>cheetah</td> <td>9</td> </tr> <tr> <td>zebra</td> <td>14</td> </tr> </tbody> </table>	Animal	Number of students	elephant	8	tiger	12	lion	20	cheetah	9	zebra	14	1	<p>Allow if the height of the bar representing the cheetah is in the space between 10 and 8</p> <p>Allow variable widths of bar so long as within confines of cheetah.</p> <p>The bar does not need to be shaded.</p>
Animal	Number of students														
elephant	8														
tiger	12														
lion	20														
cheetah	9														
zebra	14														
2	C, D, B, A	1	<p>Allow 130°, 110°, 90°, 75° allow ± 2°</p> <p>Must be in the given order.</p>												
3	$\frac{1}{3}$ or $\frac{4}{12}$ or $\frac{2}{6}$	1	Accept any equivalent fraction.												

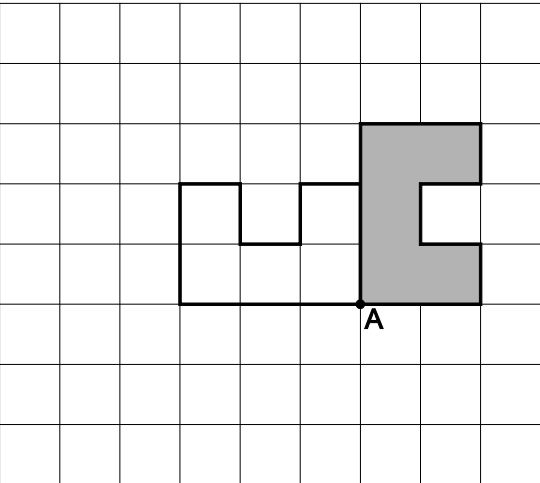
Question	Answer	Marks	Further Information
4	$\frac{2}{8} < \frac{4}{8}$ $\frac{7}{8} > \frac{5}{8}$ $\frac{3}{8} = \frac{3}{8}$ $\frac{6}{8} > \frac{1}{8}$	2	All 4 statements must be correct for 2 marks.
	2 or 3 correct answers.	B1	
5	8	1	
6	23 (packets)	1	
7	4601 4548 4635 4590 4610	1	Accept any clear indication.
8	Squares or square units	1	Accept mm ² or cm ² . Accept any tessellating shape.

Question	Answer	Marks	Further Information
9	$42 + 58$ or $52 + 48$	1	
10		2	All 4 boxes correct.
	2 or 3 boxes correct.	M1	
11(a)		1	Award 1 mark for an equilateral triangle in any position. Dots must be used as the vertices of the triangle.
11(b)	Here are 3 different answers. For example: 	1	Award 1 mark for an isosceles triangle in any position. Dots must be used as the vertices of the triangle.

Question	Answer	Marks	Further Information																		
<p>12</p>	<table border="1"> <thead> <tr> <th colspan="3">Frequency table of scores</th> </tr> <tr> <th>Scores</th> <th>Tally</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>3–6</td> <td> </td> <td>1</td> </tr> <tr> <td>7–10</td> <td> </td> <td>3</td> </tr> <tr> <td>11–14</td> <td> </td> <td>6</td> </tr> <tr> <td>15–18</td> <td> </td> <td>5</td> </tr> </tbody> </table>	Frequency table of scores			Scores	Tally	Frequency	3–6		1	7–10		3	11–14		6	15–18		5	<p>2</p>	<p>Award 2 marks if both columns are correct. Tallies must be in groups of 5</p>
	Frequency table of scores																				
Scores	Tally	Frequency																			
3–6		1																			
7–10		3																			
11–14		6																			
15–18		5																			
<p>Either the tally or the frequency column is correct.</p> <p>or</p> <p>4 or more boxes are correct.</p>	<p>B1</p>	<p>Tallies must be in groups of 5</p>																			
<p>13</p>		<p>1</p>	<p>The diagram must be sufficiently accurate for the intention to be clear.</p>																		
<p>14</p>	<p>$3\frac{1}{4}$ and $5\frac{1}{2}$</p>	<p>2</p>	<p>Do not accept decimal answers. Accept equivalent mixed numbers.</p>																		
	<p>one correct answer.</p>	<p>B1</p>																			

Question	Answer	Marks	Further Information
15	$\boxed{17} + \boxed{5} > 20$ $\boxed{11} + \boxed{9} = 20$ $\boxed{2} + \boxed{3} < 20$	1	Numbers in each row can be given in any order.
16	4.1 7.8 2.4	1	All 3 answers need to be correct for 1 mark. Accept answers such as 4.10 etc.
17	84, 12, 54	2	All 3 correct
	2 correct answers.	B1	
18(a)	$\boxed{6}$ out of 10 is the same as 60%.	1	
18(b)	5 out of 20 is the same as $\boxed{25}$ %.	1	
19	350	1	
20	28 May	1	

Question	Answer	Marks	Further Information									
21	55 cents or \$0.55	1	Do not accept 55 or 0.55									
22	$59 \times 30 = 1770$	1										
23	An explanation which recognises that all numbers ending in 3 are not prime, for example: <ul style="list-style-type: none"> • 33 divides by 3 so it is not prime • 63 is divisible by 3 	1	Accept a counter example, for example: 93 Do not accept a statement without exemplification, e.g. Not all numbers that end in 3 are prime.									
24(a)	(\$) 3338	1										
24(b)	(\$) 745	1										
25	<table border="1"> <thead> <tr> <th></th> <th>Multiples of 4</th> <th>Not multiples of 4</th> </tr> </thead> <tbody> <tr> <th>Multiples of 5</th> <td>40</td> <td></td> </tr> <tr> <th>Not multiples of 5</th> <td>24 36 64</td> <td>54</td> </tr> </tbody> </table>		Multiples of 4	Not multiples of 4	Multiples of 5	40		Not multiples of 5	24 36 64	54	2	Award 2 marks for 4 numbers correctly placed.
		Multiples of 4	Not multiples of 4									
Multiples of 5	40											
Not multiples of 5	24 36 64	54										
	3 numbers correctly placed	B1										

Question	Answer	Marks	Further Information
26	5.5	1	Do not allow -5.5
27	30 (°C)	1	Do not allow -30 (°C)
28		1	The diagram must be sufficiently accurate for the intention to be clear.
29(a)	124 (°)	1	Accept 123 – 125 (°) inclusive
29(b)	7.9 (cm)	1	Accept 7.8 – 8.0 (cm) inclusive Accept 78 mm – 80 mm inclusive



Cambridge International Examinations
Cambridge Primary Checkpoint

MATHEMATICS

0845/01

Paper 1

April 2018

MARK SCHEME

Maximum Mark: 40

IMPORTANT NOTICE

Mark Schemes have been issued on the basis of **one** copy per Assistant examiner and two copies per Team Leader.

Mark scheme annotations and abbreviations

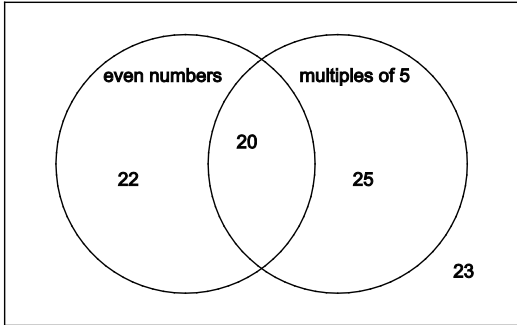
M1	method mark
A1	accuracy mark
B1	independent mark
FT	follow through after error
dep	dependent
oe	or equivalent
cao	correct answer only
isw	ignore subsequent working
soi	seen or implied

Question	Answer	Marks	Further Information
1	67	1	

Question	Answer	Marks	Further Information
2	18 (squares)	1	Do not accept 18^2

Question	Answer	Marks	Further Information																
3	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>x</td> <td>4</td> <td>3</td> <td>9</td> </tr> <tr> <td>2</td> <td>8</td> <td>6</td> <td>18</td> </tr> <tr> <td>5</td> <td>20</td> <td>15</td> <td>45</td> </tr> <tr> <td>6</td> <td>24</td> <td>18</td> <td>54</td> </tr> </table>	x	4	3	9	2	8	6	18	5	20	15	45	6	24	18	54	2	Award 2 marks for all 5 boxes correct.
	x	4	3	9															
2	8	6	18																
5	20	15	45																
6	24	18	54																
	3 or 4 boxes correct	B1																	

Question	Answer	Marks	Further Information
4	Any 2 triangles shaded	1	

Question	Answer	Marks	Further Information
5		2	All 4 numbers must be in the correct section of the diagram for 2 marks.
	3 numbers correctly placed.	B1	
Question	Answer	Marks	Further Information
6	270 (° clockwise)	1	
Question	Answer	Marks	Further Information
7	<p>Yes, together with calculations showing that $\frac{7}{10} > \frac{3}{5}$</p> <p>for example:</p> <ul style="list-style-type: none"> $\frac{3}{5} = \frac{6}{10}$ so $\frac{7}{10}$ is larger $\frac{3}{5} = 0.6$ and $\frac{7}{10} = 0.7$ so $\frac{7}{10}$ is larger 	1	Do not accept 'Yes' without a mathematically correct explanation.

Question	Answer	Marks	Further Information
8	3721	1	

Question	Answer	Marks	Further Information
9	E	1	Allow 65900

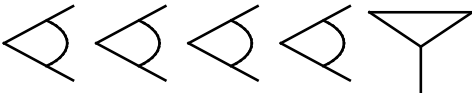
Question	Answer	Marks	Further Information
10	$\frac{1}{\boxed{2}} = 50\%$ $\frac{4}{\boxed{100}} = 4\%$ $\frac{3}{10} = \boxed{30}\%$	2	All three must be correct for the award of 2 marks.
	2 correct answers.	B1	

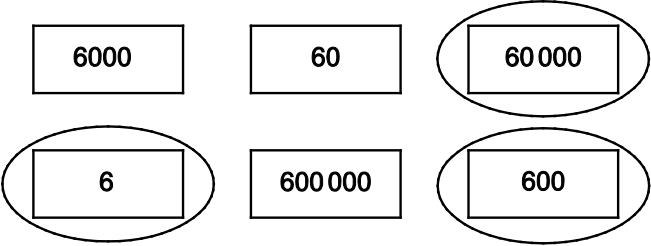
Question	Answer	Marks	Further Information
11(a)	22 30	1	Accept 22:30 Do not accept 22.30
11(b)	08 45	1	Accept 08:45 Do not accept 8.45

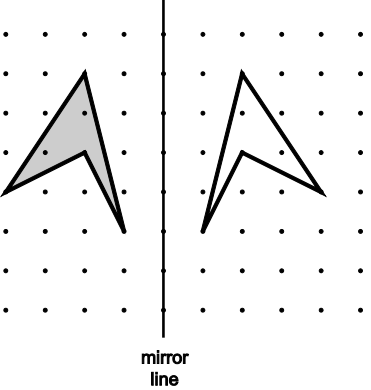
Question	Answer	Marks	Further Information																
12	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>1.6</td> <td>9.4</td> <td>2.6</td> <td>5.4</td> </tr> <tr> <td>4.5</td> <td>8.4</td> <td>5.6</td> <td>4.4</td> </tr> <tr> <td>6.5</td> <td>7.5</td> <td>7.2</td> <td>2.4</td> </tr> <tr> <td>3.5</td> <td>3.6</td> <td>2.5</td> <td>6.6</td> </tr> </table>	1.6	9.4	2.6	5.4	4.5	8.4	5.6	4.4	6.5	7.5	7.2	2.4	3.5	3.6	2.5	6.6	2	Award 2 marks for all four answers correct with no errors.
1.6	9.4	2.6	5.4																
4.5	8.4	5.6	4.4																
6.5	7.5	7.2	2.4																
3.5	3.6	2.5	6.6																
	2 or 3 answers correct with no more than 2 errors or All 4 correct but with additional pairs ringed.	B1																	

Question	Answer	Marks	Further Information
13	$4\frac{4}{5}$ (m)	1	Accept 4 plus any fraction equivalent to $\frac{4}{5}$. Do not accept 4.8

Question	Answer	Marks	Further Information
14(a)	8 (blocks)	1	
14(b)	6 (blocks)	1	

Question	Answer	Marks	Further Information
15(a)	16 and 53	1	Both numbers must be correct.
15(b)		1	

Question	Answer	Marks	Further Information
16		1	All three must be correct for 1 mark.

Question	Answer	Marks	Further Information
17		1	

Question	Answer	Marks	Further Information				
18	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="padding: 5px;">7.04</td> <td style="padding: 5px;">7.1</td> <td style="padding: 5px;">7.4</td> <td style="padding: 5px;">7.44</td> </tr> </table>	7.04	7.1	7.4	7.44	1	All 4 boxes must be correct for 1 mark.
7.04	7.1	7.4	7.44				

Question	Answer	Marks	Further Information
19	0.9 or $\frac{9}{10}$	1	

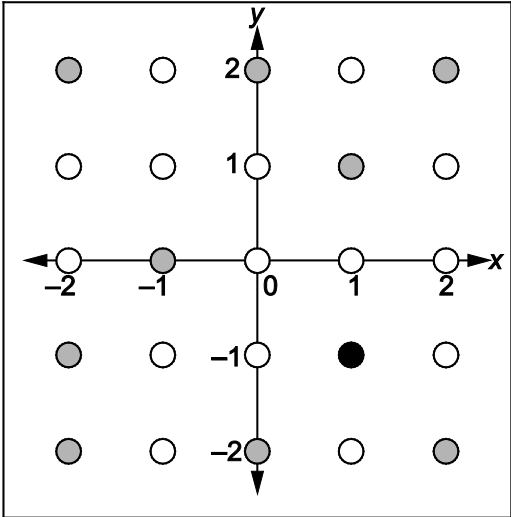
Question	Answer	Marks	Further Information
20	68.4 1.9 684	2	All 3 correct.
	2 correct.	B1	

Question	Answer	Marks	Further Information
21	80 and 100 and 120	2	All 3 correct with no incorrect answers.
	2 correct answers with no incorrect answers or 3 correct answers and no more than 1 incorrect answer	B1	

Question	Answer	Marks	Further Information
22	60(°)	1	

Question	Answer	Marks	Further Information
23	17 (°C)	1	Do not accept –17 (°C)

Question	Answer	Marks	Further Information
24(a)	(\$) 31.25	1	
24(b)	(\$) 258.65	1	

Question	Answer	Marks	Further Information
25(a)		1	'Peg' marked at the point (1, -1) Accept any identifiable mark.
25(b)	(-1, -1) (0, -1) (2, -1)	1	All 3 co-ordinates must be correct for 1 mark. Accept the answers in any order.

Question	Answer	Marks	Further Information
26	3500	1	

Question	Answer	Marks	Further Information
27	$17\frac{1}{2}$ (miles) or 17.5 (miles)	1	Accept answers in the range 17 miles to 18 miles inclusive.

Question	Answer	Marks	Further Information
28(a)	Any three numbers of which at least two are 6	1	
28(b)	Any three numbers where largest – smallest is 7	1	



Cambridge International Examinations
Cambridge Primary Checkpoint

MATHEMATICS

0845/02

Paper 2

April 2018

MARK SCHEME

Maximum Mark: 40

IMPORTANT NOTICE

Mark Schemes have been issued on the basis of **one** copy per Assistant examiner and two copies per Team Leader.

Mark scheme annotations and abbreviations

M1	method mark
A1	accuracy mark
B1	independent mark
FT	follow through after error
dep	dependent
oe	or equivalent
cao	correct answer only
isw	ignore subsequent working
soi	seen or implied

Question	Answer	Marks	Further Information
1	4076	1	

Question	Answer	Marks	Further Information
2	130 (g)	1	May be on diagram

Question	Answer	Marks	Further Information									
3	<table border="1"> <tr> <td>60</td> <td>50</td> <td>10</td> </tr> <tr> <td>40</td> <td></td> <td>80</td> </tr> <tr> <td>20</td> <td>70</td> <td>30</td> </tr> </table>	60	50	10	40		80	20	70	30	2	Award 2 marks for all 5 entries correct.
	60	50	10									
40		80										
20	70	30										
	Any 2 or 3 sides adding to 120	B1										

Question	Answer	Marks	Further Information
4		1	All three lines must be correct with no additional lines for the award of the mark.

Question	Answer	Marks	Further Information
5	$\begin{array}{r} 2 \\ \hline 4 \end{array}$	1	

Question	Answer	Marks	Further Information
6(a)	45 (students)	1	
6(b)	<p>An explanation that shows more students ride bicycles in week 2, for example:</p> <ul style="list-style-type: none"> 15 students ride bicycles in week 1 and 20 students ride bicycles in week 2 	1	<p>Must be evaluated. Do not accept just a repeat of the given information, e.g. repeating the value of each symbol.</p>

Question	Answer	Marks	Further Information
7		1	All 3 numbers must be correct for the award of the mark.

Question	Answer	Marks	Further Information
8	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p style="text-align: center;">2 north</p> <p style="text-align: center;">----- 3 east</p> <p style="text-align: center;">----- 1 north</p> <p style="text-align: center;">----- 3 east</p> </div>	1	

Question	Answer	Marks	Further Information
9		2	<p>Award 2 marks for all 3 points correct.</p> <p>Accept points not joined.</p> <p>Ignore interim points if not connected.</p>
	2 points correct.	B1	

Question	Answer	Marks	Further Information
10	8 16 20 36 45 54 64 70	1	All 3 must be correct with no wrong answers.

Question	Answer	Marks	Further Information										
11	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>To the nearest whole number</th> </tr> </thead> <tbody> <tr> <td>24.6×8</td> <td>197</td> </tr> <tr> <td>$348 \div 7.5$</td> <td>46</td> </tr> <tr> <td>$5091.5 \div 17$</td> <td>300</td> </tr> <tr> <td>471.9×9.1</td> <td>4294</td> </tr> </tbody> </table>		To the nearest whole number	24.6×8	197	$348 \div 7.5$	46	$5091.5 \div 17$	300	471.9×9.1	4294	2	All four must be correct for 2 marks. Do not accept e.g. 46.00 300.00 4294.00
		To the nearest whole number											
24.6×8	197												
$348 \div 7.5$	46												
$5091.5 \div 17$	300												
471.9×9.1	4294												
2 or 3 correct answers.		B1											

Question	Answer	Marks	Further Information
12	8 (fish)	1	

Question	Answer	Marks	Further Information
13	9 (tents)	1	Do not accept 8 remainder 2 or $8 \frac{2}{9}$ etc.

Question	Answer	Marks	Further Information
14	750 (cm)	1	

Question	Answer	Marks	Further Information
15(a)	3340 (cm)	1	
15(b)	0.334 (m)	1	

Question	Answer	Marks	Further Information
16(a)	<p>Anastasia spins a number smaller than 8</p> <p>Impossible <input type="checkbox"/> Unlikely <input type="checkbox"/> Even chance <input type="checkbox"/> Likely <input checked="" type="checkbox"/> Certain <input type="checkbox"/></p> <p>Anastasia spins a number that is a multiple of 12</p> <p>Impossible <input checked="" type="checkbox"/> Unlikely <input type="checkbox"/> Even chance <input type="checkbox"/> Likely <input type="checkbox"/> Certain <input type="checkbox"/></p>	1	Both correct for 1 mark.
16(b)	<p>An event connected to the spinner with probability of 0.5</p> <p>e.g.</p> <ul style="list-style-type: none"> ▪ getting an even number ▪ getting a number less than 6 ▪ getting a number greater than 5 ▪ getting a factor of 12 	1	Do not award the mark for two exclusive examples given, e.g. "landing on an odd number or an even number."

Question	Answer	Marks	Further Information
17	$\frac{2}{10}$ ——— 50% $\frac{1}{2}$ ——— 20% $\frac{68}{100}$ ——— 75% $\frac{3}{4}$ ——— 68%	1	All 3 lines must be correct for 1 mark.

Question	Answer	Marks	Further Information
18	$1 \times 42 = 42$ $2 \times 21 = 42$ $3 \times 14 = 42$ $6 \times 7 = 42$	2	All 4 calculations correct with no errors. Accept calculations in any order or commutative.
	2 or 3 calculations correct with no more than 2 incorrect calculations. or All 4 calculations correct with no more than 2 incorrect calculations.	B1	

Question	Answer	Marks	Further Information
19	20 90	1	Both answers required.

Question	Answer	Marks	Further Information
20(a)	A rectangle with a perimeter of 12 cm: 1×5 or 2×4 or 3×3	1	Vertices of rectangle must be placed on a dot.
20(b)	A rectangle with an area of 12 cm ² : 1×12 or 2×6 or 3×4	1	Vertices of rectangle must be placed on a dot.

Question	Answer	Marks	Further Information									
21	<table border="1"> <tr> <td></td> <td>polygon</td> <td>not a polygon</td> </tr> <tr> <td>has right angles</td> <td>A F</td> <td>C</td> </tr> <tr> <td>does not have right angles</td> <td>B D</td> <td>E</td> </tr> </table>		polygon	not a polygon	has right angles	A F	C	does not have right angles	B D	E	2	All 5 letters correct. Do not award mark for a letter in two sections.
		polygon	not a polygon									
has right angles	A F	C										
does not have right angles	B D	E										
	3 or 4 letters correct.	B1										

Question	Answer	Marks	Further Information
22	(\$) 4.25	2	
	Correct method containing any number of arithmetic errors: $(1.25 \times 25) - 27$	M1	

Question	Answer	Marks	Further Information
23	<div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>Onion Soup Serves 6</p> <p>60 g butter</p> <p>3 large onions</p> <p>1275 ml stock</p> <p>4½ teaspoons flour</p> </div>	2	All four must be correct. Accept 4.5 teaspoons flour.
	2 or 3 correct answers.	B1	
	sight of $\times 1.5$ or equivalent.	M1	
Question	Answer	Marks	Further Information
24	(\$) 5.25	2	
	Correct method containing any number of arithmetic errors, for example: $2 \times 1.50 + 5 \times (3 \times 1.50 \div 10)$	M1	
	sight of 0.45 or 45	B1	Units must be correct if shown.

Question	Answer	Marks	Further Information
25	> and <	1	In the correct order.

Question	Answer	Marks	Further Information																
26	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>19</td><td>18</td><td>9</td><td>13</td></tr> <tr><td>17</td><td>15</td><td>6</td><td>4</td></tr> <tr><td>7</td><td>3</td><td>11</td><td>12</td></tr> <tr><td>20</td><td>1</td><td>2</td><td>5</td></tr> </table>	19	18	9	13	17	15	6	4	7	3	11	12	20	1	2	5	1	
19	18	9	13																
17	15	6	4																
7	3	11	12																
20	1	2	5																

Question	Answer	Marks	Further Information
27	$(6 \times 1.5 + 4.9) \times 4 = 55.6$	1	

Question	Answer	Marks	Further Information
28	5 (minutes) 56 (seconds)	1	The answer must be given in minutes and seconds. Do not accept 5.93 recurring (minutes) or 356 (seconds).

MATHEMATICS**0845/01**

Paper 1

October 2018

MARK SCHEME

Maximum Mark: 40

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Markers were instructed to award marks. It does not indicate the details of the discussions that took place at an Markers' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the End of Series Report.

Cambridge will not enter into discussions about these mark schemes.

Mark scheme annotations and abbreviations

M1	method mark
A1	accuracy mark
B1	independent mark
FT	follow through after error
dep	dependent
oe	or equivalent
cao	correct answer only
isw	ignore subsequent working
soi	seen or implied

This document consists of **8** printed pages.

Question	Answer	Marks	Further Information																
1	E2	1	Do not accept 2E																
2	166 (magazines)	1																	
3	C B D A	1	Do not accept reverse order. Allow 40°, 90°, 100°, 130° ±1																
4	60 (people)	1																	
5	All 5 numbers correct: <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>x</td> <td>3</td> <td>5</td> <td>9</td> </tr> <tr> <td>4</td> <td>12</td> <td>20</td> <td>36</td> </tr> <tr> <td>6</td> <td>18</td> <td>30</td> <td>54</td> </tr> <tr> <td>2</td> <td>6</td> <td>10</td> <td>18</td> </tr> </table>	x	3	5	9	4	12	20	36	6	18	30	54	2	6	10	18	2	
x	3	5	9																
4	12	20	36																
6	18	30	54																
2	6	10	18																
6(a)	3 or 4 correct numbers 35	B1																	
6(b)	'No' must be ticked, together with an explanation that the twelfth number in the sequence is even, not odd, for example: <ul style="list-style-type: none"> • 12 x 5 is 60 (which is even or is not odd) • the sequence goes odd, even, odd, even so the twelfth number will be even • odd x even = even • all the even multiples of 5 are even • 60 (is even) • the twelfth number is 60 	1	Do not accept 'No' without a valid explanation. Accept alternative wording. Do not accept just 'The twelfth number is even'. Explanation must be mathematically correct and calculations must relate to 12 x 5 and or 60																

Question	Answer	Marks	Further Information
7	20 (cm)	1	
8	5 (days)	1	Accept a list, or clear indication of: Monday, Tuesday, Wednesday, Saturday, Sunday
9	5.3 + 4.7 or 5.7 + 4.3	1	Numbers can be in either order.
10	(x =) 56 (°)	1	
11	$3\frac{2}{5}$	1	Do not accept 3.4
12	63 (mm)	1	Allow any answer between 61 mm and 65 mm. Do not accept answer in centimetres.
13	6750 700 68 6651 7000	1	Accept alternative, unambiguous indications of the correct answer.
14(a)	isosceles and Explanation that 2 sides are equal or Explanation that 2 angles are equal	1	Do not award the mark for isosceles with no explanation. Allow 'Because it has (only) one line of symmetry.'
14(b)	scalene and Explanation that all sides are different lengths or Explanation that all angles are different sizes	1	Do not award the mark for scalene with no explanation. Allow 'has no line of symmetry'

Question	Answer	Marks	Further Information												
15	225 (grams)	1													
16(a)	They are all square numbers.	1	Accept the mark for recognition that they are all a number multiplied by itself, e.g. 4×4 , 5×5 , 6×6 , 7×7 , 8×8 Allow $a \times a = b$ or similar												
16(b)	81	1													
17	A C D B	1	Accept the correct times listed in order: 6:55 7:30 9:10 9:45												
18	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>IN</th> <th>OUT</th> </tr> </thead> <tbody> <tr> <td>1.5</td> <td>150</td> </tr> <tr> <td>9.37</td> <td>937</td> </tr> <tr> <td>6.2</td> <td>620</td> </tr> <tr> <td>0.49</td> <td>49</td> </tr> <tr> <td>0.07</td> <td>7</td> </tr> </tbody> </table>	IN	OUT	1.5	150	9.37	937	6.2	620	0.49	49	0.07	7	2	All 4 numbers correct.
IN	OUT														
1.5	150														
9.37	937														
6.2	620														
0.49	49														
0.07	7														
19	2 or 3 numbers correct (\$)198 oe	B1 1													

Question	Answer	Marks	Further Information
20(a)	19 (cents)	1	
20(b)	<p>Apple ticked, together with calculations showing that an orange costs less than an apple, for example:</p> <ul style="list-style-type: none"> • $88 \div 5 = 17r3$ which is less than 19 • $88 \div 5 = 17.6$ which is less than 19 • $19 \times 5 = 95$ cents which is more than 88 cents <p>or</p> <p>An explanation that the difference in price between 5 oranges and 4 apples is 12 cents which is not enough to buy an apple.</p> <p>If part (a) incorrect with an answer less than 17.6 and calculation for orange in part (b) is correct e.g. $88 \div 5 = 17.6$ then the conclusion that the orange costs more to be marked correct as follow through.</p>	1	Do not award mark for apple ticked without correct justification.
21	17 and 29 or 71 and 29	1	Accept answers in any order
22	0.9	1	
23	25(%)	1	

Question	Answer	Marks	Further Information
24	$\begin{array}{|c|c|} \hline 1 & 4 \\ \hline 3 & 8 \\ \hline \end{array} + \begin{array}{|c|c|} \hline 3 & 8 \\ \hline 1 & 4 \\ \hline \end{array}$ <p style="text-align: center;">or</p> $\begin{array}{|c|c|} \hline 5 & 2 \\ \hline \end{array}$ <p style="text-align: center;">or</p> $\begin{array}{|c|c|} \hline 1 & 8 \\ \hline 3 & 4 \\ \hline \end{array} + \begin{array}{|c|c|} \hline 3 & 4 \\ \hline 1 & 8 \\ \hline \end{array}$ <p style="text-align: center;">or</p> $\begin{array}{|c|c|} \hline 5 & 2 \\ \hline \end{array}$	1	
25(a)	Even (chance)	1	Accept fifty-fifty, 50%, $\frac{3}{6}$, $\frac{1}{2}$ or equivalent fractions.
25(b)	Impossible or No chance	1	Accept 0 or zero.
26	9	1	

Question	Answer	Marks	Further Information
27	<div style="display: flex; flex-direction: column; align-items: center; gap: 5px;"> <div style="border: 1px solid black; padding: 2px 10px;">(true)</div> <div style="border: 1px solid black; padding: 2px 10px;">true</div> <div style="border: 1px solid black; padding: 2px 10px;">false</div> <div style="border: 1px solid black; padding: 2px 10px;">true</div> <div style="border: 1px solid black; padding: 2px 10px;">true</div> </div>	2	All entries must be correct for the award of 2 marks. Accept any unambiguous indication of the correct answer.
Any three correct entries.		B1	

Question	Answer	Marks	Further Information																																
28	<table border="1"> <thead> <tr> <th></th> <th>Number who walk to school</th> <th>Number who do not walk to school</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Number of Boys</td> <td>9</td> <td>6</td> <td>15</td> </tr> <tr> <td>Number of Girls</td> <td>3</td> <td>12</td> <td>15</td> </tr> <tr> <td>Total</td> <td>12</td> <td>18</td> <td>30</td> </tr> </tbody> </table> <p>3, 4 or 5 boxes correct. or Either first or second column correct and all columns totaling correctly and correct follow through total for rows E.g.</p> <table border="1"> <thead> <tr> <th></th> <th>Number who walk to school</th> <th>Number who do not walk to school</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Number of Boys</td> <td>9</td> <td>12</td> <td>21</td> </tr> <tr> <td>Number of Girls</td> <td>3</td> <td>6</td> <td>9</td> </tr> <tr> <td>Total</td> <td>12</td> <td>18</td> <td>30</td> </tr> </tbody> </table>		Number who walk to school	Number who do not walk to school	Total	Number of Boys	9	6	15	Number of Girls	3	12	15	Total	12	18	30		Number who walk to school	Number who do not walk to school	Total	Number of Boys	9	12	21	Number of Girls	3	6	9	Total	12	18	30	2	All 6 boxes correct.
	Number who walk to school	Number who do not walk to school	Total																																
Number of Boys	9	6	15																																
Number of Girls	3	12	15																																
Total	12	18	30																																
	Number who walk to school	Number who do not walk to school	Total																																
Number of Boys	9	12	21																																
Number of Girls	3	6	9																																
Total	12	18	30																																
29	10.8 (metres)	1																																	
30	$\frac{5}{100}$ or 0.05 or five hundredths	1	Do not accept hundredths or $\frac{1}{100}$ Do not accept 5 hundreds. Allow $\frac{1}{20}$																																
31	68	1																																	

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MATHEMATICS

0845/02

Paper 2

October 2018

MARK SCHEME

Maximum Mark: 40

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Markers were instructed to award marks. It does not indicate the details of the discussions that took place at an Markers' meeting before marking began, which would have considered the acceptability of alternative answers.

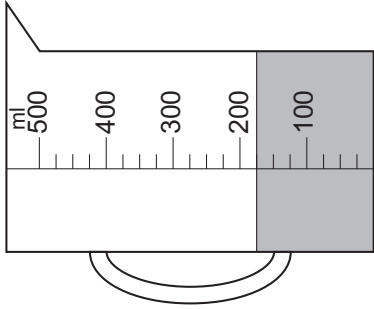
Mark schemes should be read in conjunction with the question paper and the End of Series Report.

Cambridge will not enter into discussions about these mark schemes.

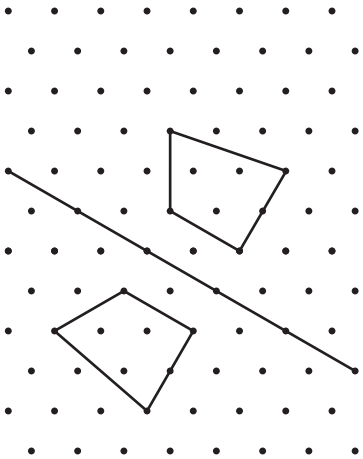
Mark scheme annotations and abbreviations

M1	method mark
A1	accuracy mark
B1	independent mark
FT	follow through after error
dep	dependent
oe	or equivalent
cao	correct answer only
isw	ignore subsequent working
soi	seen or implied

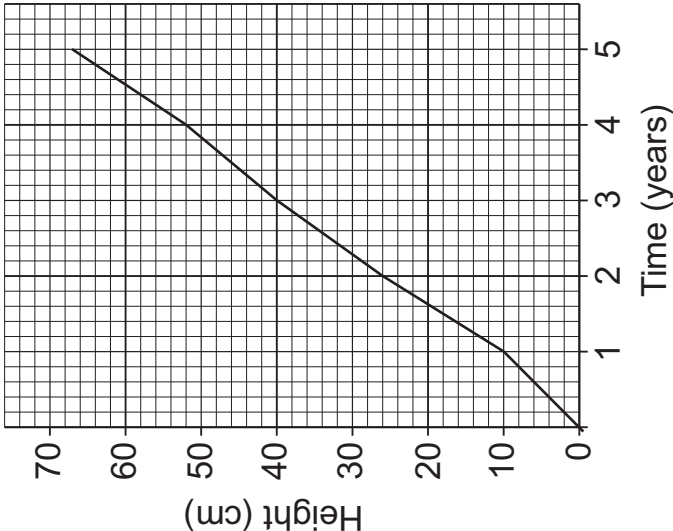
This document consists of **10** printed pages.

Question	Answer	Marks	Further Information
1	$\frac{2}{10} \frac{5}{10} \frac{6}{10} \frac{9}{10}$	1	Allow conversion to decimals.
2	$70 \times 9 = 630$ or $90 \times 7 = 630$	1	
3	4086 and 3686	1	Both numbers must be correct for 1 mark.
4	(Up 3 Right 2) Up 1 Right 4 Down 4 Left 6	1	All four lines must be correct for 1 mark. Allow 1 Up, 4 Right etc.
5(a)		1	Line should pass through the mark for 175 ml. Allow small discrepancy as long as it touches 175 or the part of line drawn extended touches 175.
5(b)	0.225 (l)	1	
6	35 cm 305 cm <u>350 cm</u> 3500 cm	1	Accept any unambiguous indication of the correct answer.

Question	Answer	Marks	Further Information
7	Indicates graph C together with an explanation that the scale on the vertical axis is as long as possible, making it easier to see the difference between the children's heights.	1	<p>Do not accept C without an explanation.</p> <p>Do not accept any facts that are true of all the graphs e.g. Yuri is the biggest.</p> <p>Do not accept just C is more accurate/reliable.</p> <p>Accept explanations relating to:</p> <ul style="list-style-type: none"> • C has bigger differences. • C is more clearly seen. • It has a larger scale. • Do not accept graph C is more accurate, but do accept anything implying graph C can be used/read more accurately.
8	<p>Division question</p> <p>16 apples are put into bags of 5 How many full bags are there?</p> <p>A minibus holds 10 people. 56 people are going on a trip. How many minibuses are needed?</p> <p>A pumpkin costs \$3 How many can you buy with \$10?</p> <p>35 candles are put into 4 boxes How many boxes are needed to hold them all?</p> <p>Rounding decision</p> <p>round up</p> <p>round down</p>	2	All 4 answers correct.
3 answers correct.		B1	

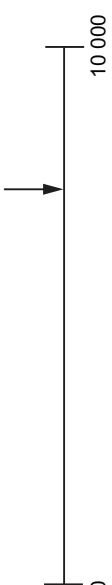
Question	Answer	Marks	Further Information
9		1	The diagram must be sufficiently accurate for the intention to be clear (vertices within 1 mm).
10	<p>10 (beads)</p> <p>6 and 8 seen or $24 - (\text{their } 6)$ and $(\text{their } 8)$ or 14 or $\frac{5}{12}$ oe or $\frac{7}{12}$ oe</p> <p>A correct method containing any number of arithmetic errors: $24 - (\frac{1}{3} \text{ of } 24) - (\frac{1}{4} \text{ of } 24)$</p>	2	
		B1	
		M1	

Question	Answer	Marks	Further Information
11(a)	$19 \div 3 = 6 \frac{\boxed{1}}{3}$	1	
11(b)	$\boxed{15} \div 4 = 3 \frac{3}{4}$	1	
12	87×21 or 21×87	1	
13		1	<p>The diagram must be sufficiently accurate for the intention to be clear.</p> <p>Allow diagram showing an intermediate position, e.g.</p>

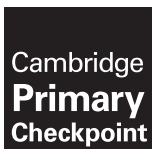
Question	Answer	Marks	Further Information
14(a)	40 (cm)	1	
14(b)	<p data-bbox="347 1240 424 1588">Graph to show the growth of a maple tree</p> 	1	<p data-bbox="341 371 376 804">Point plotted at 67 cm for 5th year.</p> <p data-bbox="411 546 477 804">Allow point between 66 cm and 68 cm exclusive.</p>
15	4.5	1	<p data-bbox="1161 667 1233 804">Accept $4\frac{1}{2}$</p>

Question	Answer	Marks	Further Information									
16	$26 + 54 = \boxed{} = 100 - 20$ $7 \times 9 < \boxed{} < 8 \times 8$ $56 \div 7 > \boxed{} > 76 - 69$	1	All answers must be correct for the award of the mark.									
17	An example such as: <i>18 is a multiple of 3 but it is even</i>	1	Accept sight of any even multiple of 3 Allow explanation that includes the repeat addition of 3									
18	A correct number in each cell: <table border="1" style="margin-left: 20px;"> <tr> <td style="width: 50px; height: 40px;"></td> <td style="width: 50px; height: 40px;">Less than 50</td> <td style="width: 50px; height: 40px;">More than 50 Less than 100</td> </tr> <tr> <td style="width: 50px; height: 40px;">Divisible by 4</td> <td style="width: 50px; height: 40px;">A multiple of 4 less than 50 e.g. 16</td> <td style="width: 50px; height: 40px;">A multiple of 4 between 50 and 100 e.g. 64</td> </tr> <tr> <td style="width: 50px; height: 40px;">Divisible by 25</td> <td style="width: 50px; height: 40px;">25</td> <td style="width: 50px; height: 40px;">75</td> </tr> </table>		Less than 50	More than 50 Less than 100	Divisible by 4	A multiple of 4 less than 50 e.g. 16	A multiple of 4 between 50 and 100 e.g. 64	Divisible by 25	25	75	2	Allow more than 1 correct answer in the top two cells.
	Less than 50	More than 50 Less than 100										
Divisible by 4	A multiple of 4 less than 50 e.g. 16	A multiple of 4 between 50 and 100 e.g. 64										
Divisible by 25	25	75										
Any 2 or 3 correct answers		B1										

Question	Answer	Marks	Further Information																														
19		2	4 correct answers.																														
20	<p>2 or 3 correct answers.</p> <table border="1" data-bbox="1038 965 1262 1733"> <tr> <td>I</td> <td>II</td> <td>III</td> <td>IV</td> <td>V</td> <td>VI</td> <td>VII</td> <td>VIII</td> <td>IX</td> <td>X</td> </tr> <tr> <td>XI</td> <td>XII</td> <td>XIII</td> <td>XIV</td> <td>XV</td> <td>XVI</td> <td>XVII</td> <td>XVIII</td> <td>XIX</td> <td>XX</td> </tr> <tr> <td>XXI</td> <td>XXII</td> <td>XXIII</td> <td>XXIV</td> <td>XXV</td> <td>XXVI</td> <td>XXVII</td> <td>XXVIII</td> <td>XXIX</td> <td>XXX</td> </tr> </table> <p>3 or more numbers correct.</p>	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	XXII	XXIII	XXIV	XXV	XXVI	XXVII	XXVIII	XXIX	XXX	B1	<p>All 6 numbers correct.</p> <p>Missing numbers are: XV XVI XVII XVIII XX XXI XXII XXIII XXIV XXV XXVI XXVII XXVIII XXIX</p>
I	II	III	IV	V	VI	VII	VIII	IX	X																								
XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX																								
XXI	XXII	XXIII	XXIV	XXV	XXVI	XXVII	XXVIII	XXIX	XXX																								

Question	Answer	Marks	Further Information
21	$\frac{4}{\boxed{5}} = \frac{20}{25}$ $\frac{\boxed{1}}{5} = \frac{24}{120}$	1	Both parts must be correct for the award of the mark.
22		1	Accept an arrow between 7.3 cm and 7.5 cm from 0
23(a)	34	1	
23(b)	35	1	
24(a)	22 (°C)	1	Do not accept -22 (°C)
24(b)	-20 (°C)	1	Do not accept 20- (°C)
25(a)	27 (cm ²)	1	
25(b)	42 (cm)	1	
26	0.4 and $\frac{2}{5}$	1	Accept any unambiguous indication of the correct answer.

Question	Answer	Marks	Further Information
27	<p>centimetres</p> <p>cm²</p> <p>metres</p> <p>m²</p> <p>kilometres</p> <p>km²</p>	1	All three lines must be correct for 1 mark.
28(a)	9 (hours)	1	
28(b)	13:35 or 1:35 pm	1	Do not accept just 1:35



Cambridge International Examinations
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MATHEMATICS

0845/01

Paper 1

April 2017

MARK SCHEME

Maximum Mark: 40

IMPORTANT NOTICE

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Published

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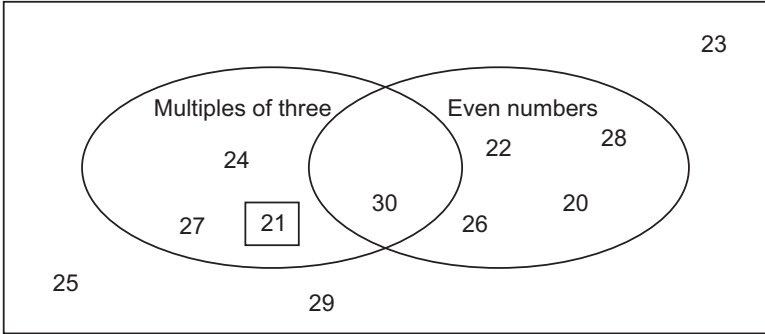
Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

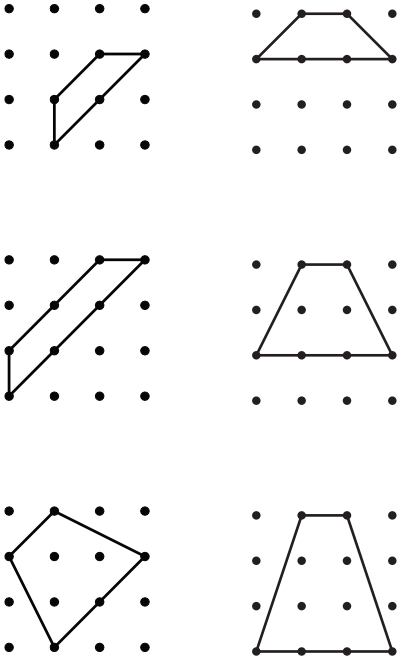
Cambridge will not enter into discussions about these mark schemes.

This document consists of **13** printed pages and **1** blank page.

Mark scheme annotations and abbreviations

M1	method mark
A1	accuracy mark
B1	independent mark
FT	follow through after error
dep	dependent
oe	or equivalent
cao	correct answer only
isw	ignore subsequent working
soi	seen or implied

Question	Answer	Marks	Further Information
1	50	1	
Question	Answer	Marks	Further Information
2	9 (km)	1	
Question	Answer	Marks	Further Information
3 (a)		1	Anywhere in the multiples of three ring, but not in the overlap area.
3 (b)	24	1	

Question	Answer	Marks	Further Information
4 (a)	heptagon	1	Accept 'irregular heptagon'. Accept 'septagon'.
4 (b)	<p>Any trapezium with 1 line of symmetry made by connecting dots on the grid, e.g.:</p> 	1	Accept shape drawn in any orientation.

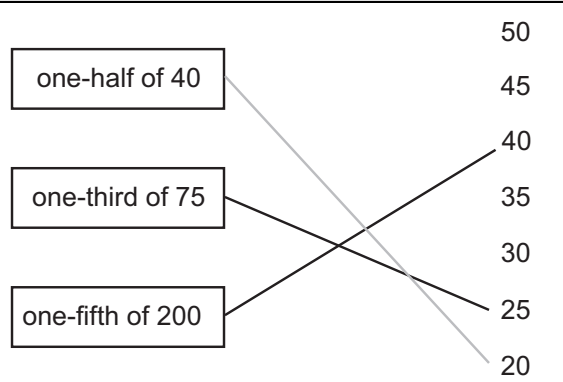
Question	Answer	Marks	Further Information
5	7 (marbles)	2	
	A correct method containing any number of arithmetic errors: For example: $(24 \div 2) - 5$ or $(24 - 10) \div 2$ or $24 - (24 \div 2) - 5$	M1	

Question	Answer	Marks	Further Information
6	$1\frac{1}{2}$ or $1\frac{2}{4}$ or $1\frac{4}{8}$ (pizzas)	1	Accept any equivalent mixed number.

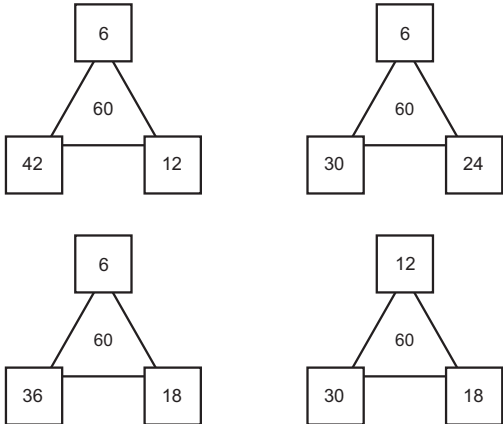
Question	Answer	Marks	Further Information					
7 (a)	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>2</td> </tr> <tr> <td>4</td> </tr> <tr> <td>5</td> </tr> <tr> <td>3</td> </tr> </tbody> </table>	Frequency	2	4	5	3	1	Ignore tally column. Mark is awarded for correct frequencies. Do not accept tallies on their own.
Frequency								
2								
4								
5								
3								
7 (b)	Red	1						

Question	Answer	Marks	Further Information
8 (a)	(\$) 40	1	
8 (b)	July, August, September and October	1	All four answers must be given for the mark, with no extras. Accept abbreviations, e.g. J, A, S, O

Question	Answer	Marks	Further Information
9	4250 (ml)	1	

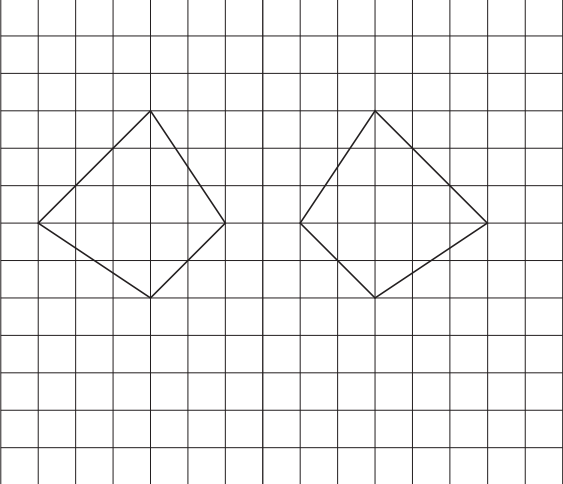
Question	Answer	Marks	Further Information
10		2	One mark for each.
	One correct line.	B1	

Question	Answer	Marks	Further Information
11	16, 36 and 49	1	All three numbers must be correct for the award of the mark.

Question	Answer	Marks	Further Information
<p>12</p>	<p>Any one of:</p>  <p>Three different multiples of 6</p> <p>or</p> <p>Three multiples of 6 that add to 60 but with one repeat e.g. 6 6 48</p>	<p>2</p> <p>B1</p>	<p>Numbers can be in any order.</p>
Question	Answer	Marks	Further Information
<p>13</p>	<p>1.48 or 0.36</p>	<p>1</p>	<p>Do not allow 1 unit, 4 tenths and 8 hundredths or (0 units), 3 tenths and 6 hundredths.</p>

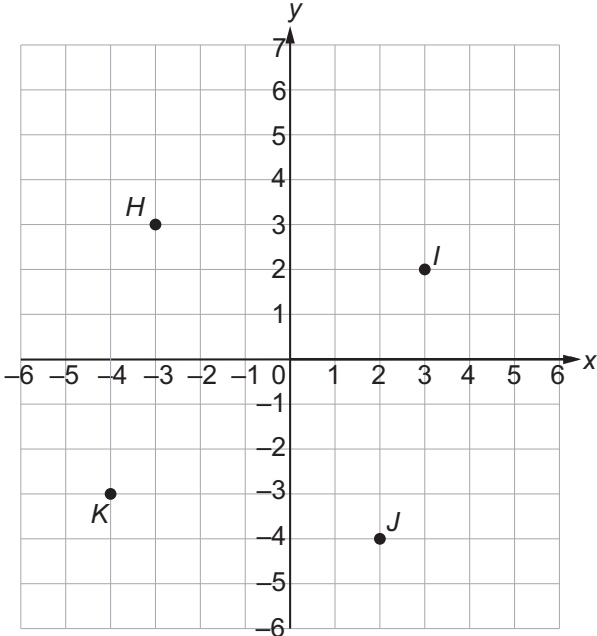


Question	Answer	Marks	Further Information
14	<p>The card has a letter T on it</p> <p>The card has a letter R on it</p> <p>The card has a capital letter on it</p> <p>Impossible</p> <p>Unlikely</p> <p>Even chance</p> <p>Likely</p> <p>Certain</p>	1	Both correct for 1 mark.
Question	Answer	Marks	Further Information
15	4	1	Accept 13 remainder 4. Do not accept fractions or decimals.

Question	Answer	Marks	Further Information
16	<p style="text-align: center;">mirror line</p> 	1	<p>All four vertices must be correct.</p> <p>Drawing must be accurate enough to show clear intention.</p>
Question	Answer	Marks	Further Information
17 (a)	<p>Explanation that shows that 784 must be multiplied by 10, for example</p> $112 \times 70 = 112 \times 7 \times 10$ <p>or</p> 784×10 <p>The answer, 7840, is not essential.</p>	1	<p>Do not allow 7840 without a correct explanation.</p> <p>Do not allow long multiplication 112×70 with no reference to $112 \times 7 = 784$.</p> <p>Do not accept 'add zero' or 'move decimal'.</p>
17 (b)	<p>Explanation that shows that 784 must be divided by 10, for example:</p> $11.2 \times 7 = 112 \div 10 \times 7$ <p>or</p> $784 \div 10$ <p>or</p> $112 \times 7 \times 0.1$ <p>The answer, 78.4, is not essential.</p>	1	<p>Do not allow 78.4 without a correct explanation.</p> <p>Do not allow long multiplication 11.2×7 with no reference to $112 \times 7 = 784$.</p> <p>Do not accept 'move decimal'.</p>

Question	Answer	Marks	Further Information
18	0.2	2	All 3 lines correct with no extra lines.
	Two answers correct and no more than 1 extra incorrect line.	B1	

Question	Answer	Marks	Further Information
19 (a)	6.3 oe	1	
19 (b)	0.76 oe	1	

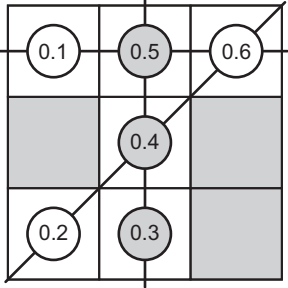
Question	Answer	Marks	Further Information
20 (a)	$(-4, -3)$	1	Correct format only.
20 (b)		1	K is plotted at $(-4, -3)$. Accept follow through from part (a).

Question	Answer	Marks	Further Information
21	3.12 3.14 3.2 3.4 3.42	1	Do not accept reverse order.

Question	Answer	Marks	Further Information
22	140	1	

Question	Answer	Marks	Further Information
23	<input checked="" type="checkbox"/> true <input type="checkbox"/> true <input type="checkbox"/> true <input type="checkbox"/> false	1	All three must be correct for the award of the mark. Accept any clear indication.

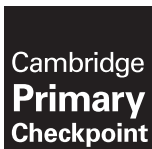
Question	Answer	Marks	Further Information
24	1 3 11 33	1	All factors must be given for award of one mark. Allow in any order.

Question	Answer	Marks	Further Information
25	Each line should total 1.2 	1	All three numbers must be correct for the award of the mark.

Question	Answer	Marks	Further Information
26	2.69 and 3.58	1	Both must be correct for the mark.
Question	Answer	Marks	Further Information
27	62(°)	1	Accept answers between 61° and 63° inclusive.
Question	Answer	Marks	Further Information
28	116 (cm ²)	2	
	A correct method containing any number of arithmetic errors, e.g.: (12 × 3) + (20 × 4) or (7 × 12) + (4 × 8) or (20 × 7) – (8 × 3)	M1	



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Cambridge International Examinations
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MATHEMATICS

0845/02

Paper 2

April 2017

MARK SCHEME

Maximum Mark: 40

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Mark scheme annotations and abbreviations

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A1	accuracy mark
B1	independent mark
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dep	dependent
oe	or equivalent
cao	correct answer only
isw	ignore subsequent working
soi	seen or implied

Question	Answer	Marks	Further Information
1	200 and 850	2	Accept 840 to 860 inclusive for 850.
	One correct answer.	B1	

Question	Answer	Marks	Further Information
2	B C A D	1	Accept 20°, 85°, 90°, 130° (all ± 5°).

Question	Answer	Marks	Further Information
3	384	1	

Question	Answer	Marks	Further Information								
4	<table border="1"> <thead> <tr> <th>Fraction</th> <th>Decimal</th> </tr> </thead> <tbody> <tr> <td>$\frac{1}{2}$</td> <td>0.5</td> </tr> <tr> <td>$\frac{3}{4}$</td> <td>0.75</td> </tr> <tr> <td>$\frac{63}{100}$</td> <td>0.63</td> </tr> </tbody> </table>	Fraction	Decimal	$\frac{1}{2}$	0.5	$\frac{3}{4}$	0.75	$\frac{63}{100}$	0.63	1	Award 1 mark for both correct. Allow equivalent fractions for $\frac{3}{4}$ e.g. $\frac{75}{100}$.
	Fraction	Decimal									
	$\frac{1}{2}$	0.5									
	$\frac{3}{4}$	0.75									
$\frac{63}{100}$	0.63										

Question	Answer	Marks	Further Information
5 (a)	25 (ants)	1	
5 (b)	<p>An explanation that shows there are more spiders in the Class 4B pictogram, for example:</p> <ul style="list-style-type: none"> The chart shows that Class 4A collected $3 \times 5 = 15$ spiders but Class 4B collected $2 \times 10 = 20$ spiders. 	1	<p>Do not award the mark for explanations that only restate the value of each symbol, for example</p> <ul style="list-style-type: none"> in 4A each symbol = 5 in 4B each symbol = 10 <p>Values of 15 and 20 must be correct.</p>

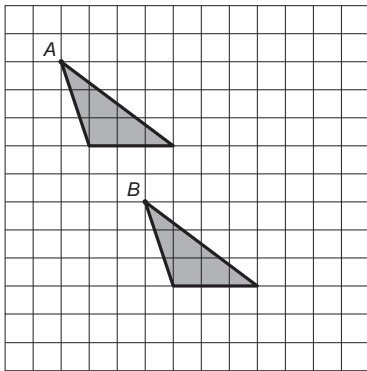
Question	Answer	Marks	Further Information
6 (a)	2 (cm)	1	
6 (b)	36 (cm)	1	

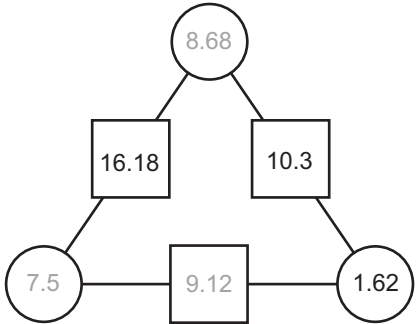
Question	Answer	Marks	Further Information
7	8 (people)	1	

Question	Answer	Marks	Further Information
8	6710 6700 7000	2	All 3 answers must be correct for 2 marks.
	Any two correct answers.	B1	

Question	Answer	Marks	Further Information
9	$\begin{array}{|c|c|} \hline 1 & 5 \\ \hline \end{array} \times \begin{array}{|c|c|} \hline 9 & 3 \\ \hline \end{array} = 1395$	1	Accept 15 and 93 in either order.
Question	Answer	Marks	Further Information
10	4 35 pm 14 05 04 17 (16 25)	1	Accept any clear indication of correct answer.
Question	Answer	Marks	Further Information
11	35550 and 35005	1	Both answers must be correct for 1 mark.

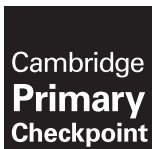
Question	Answer	Marks	Further Information
12	<p>An explanation that shows that the answer to $342 \div 5$ is not a whole number, for example:</p> <ul style="list-style-type: none"> 342 divided by 5 has a remainder (answer must be evaluated, i.e. gives the remainder of 2) the answer is not a whole number (answer must be evaluated, i.e. gives answer of 68.4) <p>or</p> <p>An explanation that includes 0 and 5, for example:</p> <ul style="list-style-type: none"> All the multiples of 5 end in 0 or 5 342 does not end in 0 or 5 <p>or</p> <p>An explanation stating that any number ending in 2 cannot be divisible by 5, for example:</p> <ul style="list-style-type: none"> Any number with a units digit of 2 is not divisible by 5 	1	
Question	Answer	Marks	Further Information
13	10 (minutes)	1	
Question	Answer	Marks	Further Information
14	Rectangle 9×2 or 6×3	1	Do not accept rectangles that do not use the dots.
Question	Answer	Marks	Further Information
15	14 (24) 34 42 54	1	

Question	Answer	Marks	Further Information
16		1	Drawing should be accurate enough to demonstrate an understanding of the required translation.
Question	Answer	Marks	Further Information
17	11, 13, 17 and 19	2	
	Three correct answers with at most one additional incorrect answer. or All four correct with one extra.	B1	
Question	Answer	Marks	Further Information
18	impossible unlikely even chance likely certain	1	

Question	Answer	Marks	Further Information
19	(\$)78.90	2	
	A correct method containing any number of arithmetic errors, e.g. $22 \times 2.75 + 4 \times 4.60$	M1	
Question	Answer	Marks	Further Information
20 (a)	2 squares shaded.	1	
20 (b)	$\frac{7}{10}$ or $\frac{70}{100}$	1	Accept equivalent fractions or decimals, for example: 0.7 or $\frac{14}{20}$
Question	Answer	Marks	Further Information
21		2	All three answers correct.
	Any one or two correct answers.	B1	

Question	Answer	Marks	Further Information
22	false	1	All answers must be correct for the award of 1 mark.
	true		
	false		
Question	Answer	Marks	Further Information
23	5 or –6	1	
Question	Answer	Marks	Further Information
24 (a)	3 (cm)	1	
24 (b)	52 (mm)	1	Allow 51 mm or 53 mm.
Question	Answer	Marks	Further Information
25	4 (faces) 8 (vertices) 8 (edges)	2	
	Two correct answers.	B1	
Question	Answer	Marks	Further Information
26	21:35	1	Accept 9:35 pm. Do not accept 9:35.

Question	Answer	Marks	Further Information
27	$\begin{array}{r} 1 \\ \hline 5 \end{array}$ $\begin{array}{r} \boxed{2} \\ \hline 5 \end{array}$	1	Both answers must be correct for the award of the mark.
Question	Answer	Marks	Further Information
28	18 (cats)	1	
Question	Answer	Marks	Further Information
29	(\$) 6.20	2	Only award one of the M1 or B1 marks.
	A correct method containing any number of arithmetic errors e.g. <ul style="list-style-type: none"> • $\begin{array}{r} 2170 \div 3.5 \\ \hline 100 \end{array}$ • $21.70 \div 35$ 	M1	
	Sight of 620 with no unit (as final answer in their working). or 620 cents seen with incorrect place value conversion to \$.	B1	



Cambridge International Examinations
Cambridge Primary Checkpoint

MATHEMATICS

0845/01

Paper 1

October 2017

MARK SCHEME

Maximum Mark: 40

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Markers were instructed to award marks. It does not indicate the details of the discussions that took place at a Markers' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the End of Series report. Cambridge will not enter into discussions about these mark schemes.

This document consists of **9** printed pages and **1** blank page.


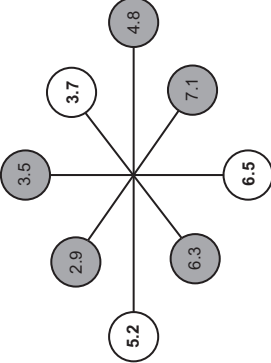
Mark scheme annotations and abbreviations

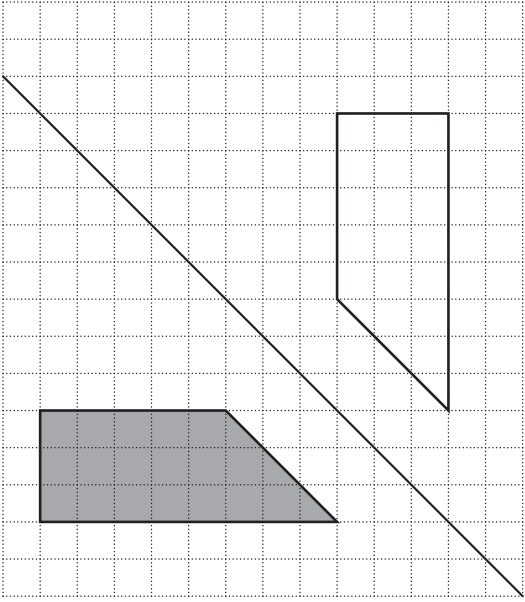
M1	method mark
A1	accuracy mark
B1	independent mark
FT	follow through after error
dep	dependent
oe	or equivalent
cao	correct answer only
isw	ignore subsequent working
soi	seen or implied

Question	Answer	Marks	Further information
1	8	1	
Question	Answer	Marks	Further Information
2	650	1	
Question	Answer	Marks	Further Information
3	2390 (people)	1	
Question	Answer	Marks	Further Information
4	16 (cm)	1	
Question	Answer	Marks	Further Information
5	34 (36) 43 56 (64) 67	1	Both must be circled for the mark to be awarded.
Question	Answer	Marks	Further Information
6(a)	9 (children)	1	
6(b)	28 (children)	1	

Question	Answer	Marks	Further Information
7	763, 736, 673, 637, 376, 367	2	All six answers in order with no additional answers.
	Five correct answers in the correct order.		B1 Do not accept reverse order.
8	7:15	1	Accept equivalent answers.
9(a)	1024	1	
9(b)	19 140	1	
10	5 (crates)	1	Do not accept 4 remainder 6
11	2.25 (metres)	1	Correct answer only.

Question	Answer	Marks	Further Information
12	$3 \frac{3}{8}$	1	Accept equivalent fractions.
Question	Answer	Marks	Further Information
13	5.3 (m)	1	
Question	Answer	Marks	Further Information
14	-50 -28 -27 -22 $\textcircled{-23}$	1	
Question	Answer	Marks	Further Information
15	1.15 (kg)	1	Accept answers between 1.13 and 1.17 (kg) inclusive.
Question	Answer	Marks	Further Information
16(a)	21:07	1	Do not allow 21:7
16(b)	00:22	1	Do not allow 24:22
Question	Answer	Marks	Further Information
17(a)	3	1	
17(b)	14 (cars)	1	

Question	Answer	Marks	Further Information
18	36 or 81	1	
19	$\frac{4}{8}$ $\frac{6}{8}$ $\frac{9}{12}$ $\frac{2}{8}$ 	1	
20	1 (minute(s)) 38 (second(s))	1	
21	7 (red balls)	1	
22		1	All three answers must be correct for the award of the mark.

Question	Answer	Marks	Further Information								
23		1	Accept slight inaccuracies in the drawing if the intention is clear.								
Question	Answer	Marks	Further Information								
24	6	1									
Question	Answer	Marks	Further Information								
25	<table border="1" data-bbox="1070 1256 1214 1727"> <tbody> <tr> <td>$6.25 \times 10 = 62.5$</td> <td>True</td> </tr> <tr> <td>$625 \div 10 = 6.25$</td> <td>False</td> </tr> <tr> <td>$0.625 \times 100 = 62.5$</td> <td>False</td> </tr> <tr> <td>$6250 \div 100 = 62.5$</td> <td>True</td> </tr> </tbody> </table>	$6.25 \times 10 = 62.5$	True	$625 \div 10 = 6.25$	False	$0.625 \times 100 = 62.5$	False	$6250 \div 100 = 62.5$	True	1	All three answers must be correct for the award of the mark.
$6.25 \times 10 = 62.5$	True										
$625 \div 10 = 6.25$	False										
$0.625 \times 100 = 62.5$	False										
$6250 \div 100 = 62.5$	True										
Question	Answer	Marks	Further Information								
26	1.7, 1.4, 1.1	1	All three answers must be correct for the award of the mark.								

Question	Answer	Marks	Further Information
27	20×1800 60×60 400×90 30×120	1	Both must be circled for the award of the mark.
Question	Answer	Marks	Further Information
28	2.06 2.35 2.4 2.6 2.95	1	
Question	Answer	Marks	Further Information
29		2	
	a correct method containing any number of arithmetic errors, e.g.: $85 + [\frac{1}{3}(130 - 85)]$ and $130 - [\frac{1}{3}(130 - 85)]$ 100 or 115 in incorrect box.	M1	Award only one of M1 or B1
Question	Answer	Marks	Further Information
30	E D A B C	2	All five answers correct.
	three or four answers correct.	B1	

Question	Answer	Marks	Further Information
31	$63 \div 9 = 7$ $0.7 \times 90 = 63$ $63 \div 70 = 0.9$ $0.9 \times 7 = 6.3$ Two correct answers.	2	Three correct answers.
		B1	
Question	Answer	Marks	Further Information
32	$\frac{9}{16}$ $\frac{2}{3}$ $\frac{3}{8}$ $\frac{5}{8}$	1	



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MATHEMATICS

0845/02

Paper 2

October 2017

MARK SCHEME

Maximum Mark: 40

Published

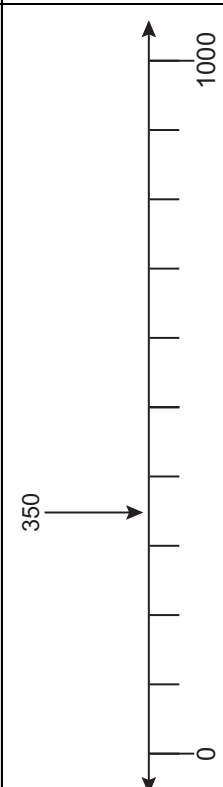
This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Markers were instructed to award marks. It does not indicate the details of the discussions that took place at a Markers' meeting before marking began, which would have considered the acceptability of alternative answers.

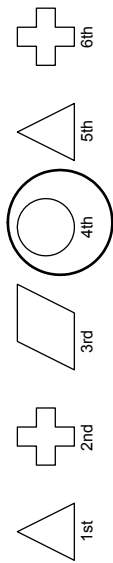
Mark schemes should be read in conjunction with the question paper and the End of Series report. Cambridge will not enter into discussions about these mark schemes.

This document consists of **11** printed pages and **1** blank page.

Mark scheme annotations and abbreviations

M1	method mark
A1	accuracy mark
B1	independent mark
FT	follow through after error
dep	dependent
oe	or equivalent
cao	correct answer only
isw	ignore subsequent working
soi	seen or implied

Question	Answer	Marks	Further Information
1		1	
2(a)	$\frac{6}{18}$ or $\frac{1}{3}$	1	Accept fractions written in words. Accept equivalent fractions.
2(b)	$\frac{9}{18}$ or $\frac{3}{6}$ or $\frac{1}{2}$	1	Accept fractions written in words. Accept equivalent fractions.
Question	Answer	Marks	Further Information
3	Card 2 – any number greater than 4990 and smaller than 5010 and Card 4 – any number greater than 5010 and smaller than 5060	1	Both boxes must be correct for the award of the mark. Allow decimal numbers in the correct range.

Question	Answer	Marks	Further Information					
4	$B < D < C < A$	2	Allow 50° 75° 90° 110° (± 2)					
	Angles in the correct order but with consistent misinterpretation of $<$ i.e. $A < C < D < B$			B1				
Question	Answer	Marks	Further Information					
5(a)	Pineapples: 7	1	Both must be correct for the award of the mark.					
	Melons: 14							
5(b)	4.5 (cm)	1						
Question	Answer	Marks	Further Information					
6		1						
Question	Answer	Marks	Further Information					
7	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>5</td> <td>3</td> <td>2</td> <td>x</td> <td>8</td> </tr> </table>	5	3	2	x	8	1	
	5	3	2	x	8			
Question	Answer	Marks	Further Information					
8	28.6	2						
	Sight of 34.1 and 5.5			B1				

Question	Answer	Marks	Further Information
9	(\$) 0.39	1	
Question	Answer	Marks	Further Information
10(a)	600 (ml)	1	
10(b)	825 (g)	1	
Question	Answer	Marks	Further Information
11		1	All four must be correct for the award of the mark.

Question	Answer	Marks	Further Information
12	48 (years) or 104 (years) A correct method involving multiples of 8 plus 1 or multiples of 7 minus 1, for example: ... 24 32 40 48 56 ... 25 33 41 49 57 or ... 21 28 35 42 49 ... 20 27 34 41 48	2 M1	Do not accept a list of multiples without evidence of +1, –1 as appropriate.
13		1	All three must be correct for the award of the mark.

Question	Answer	Marks	Further Information
14	120 (°)	1	
15	16 (students)	1	
16	$\begin{array}{r} 3.73 \\ - 1.45 \\ \hline 2.28 \end{array}$	2	<p>All three numbers must be correct.</p> <p>Allow</p> $\begin{array}{r} 3.73 \\ - 1.45 \\ \hline 2.28 \end{array}$ <p>Do not allow</p> $\begin{array}{r} 3.713 \\ - 1.45 \\ \hline 2.263 \end{array}$
Two correct numbers.		B1	

Question	Answer	Marks	Further Information
17	<p>Explanation that 15 has factors other than 1 and 15, for example:</p> <ul style="list-style-type: none"> • 3 (or 5) is a factor of 15 • $3 \times 5 = 15$ • 3 (and/or 5) divides into 15 	1	<p>Do not award the mark for explanations that only define prime numbers with no reference to 15.</p> <p>Do not award the mark for explanations which only state that 15 can be divided by other numbers. Answers must state factors other than 1 and 15, e.g.: “15 can be divided by 3 and 5” oe.</p>

Question	Answer	Marks	Further Information
18(a)	4.8 (cm)	1	Accept 4.7 to 4.9 inclusive (cm)
18(b)	73 (mm)	1	Accept 72 to 74 inclusive (mm)

Question	Answer	Marks	Further Information
19	41.78 or 81.74	1	

Question	Answer	Marks	Further Information
20	(\$)16.74	1	

Question	Answer	Marks	Further Information						
21	$209.5 + 8.29 + 94.03$ <input type="text" value="="/> 51.97×6 $998.3 + 6.7$ <input type="text" value=">"/> $1001 - (549.4 + 302.67)$ $70.75 \times (3.93 + 1.37)$ <input type="text" value="<"/> $900 + 2.4$ Two signs correct.	2	All three signs must be correct for two marks.						
		B1							
Question	Answer	Marks	Further Information						
22	<table border="1"> <tr> <td>$12 \frac{1}{2}$</td> <td>12.5</td> </tr> <tr> <td>$21 \frac{1}{4}$</td> <td>21.25</td> </tr> <tr> <td>$42 \frac{4}{5}$</td> <td>42.8</td> </tr> </table> Three correct answers.	$12 \frac{1}{2}$	12.5	$21 \frac{1}{4}$	21.25	$42 \frac{4}{5}$	42.8	2	All four answers must be correct for two marks. Accept equivalent fractions.
$12 \frac{1}{2}$	12.5								
$21 \frac{1}{4}$	21.25								
$42 \frac{4}{5}$	42.8								
		B1							

Question	Answer	Marks	Further Information
23(a)		1	
23(b)	(0, 1) or (1, -1)	1	Accept follow through from part (a). Note that (b) must be a whole number co-ordinate which lies on the line drawn in part (a).
Question	Answer	Marks	Further Information
24	<p>Any three numbers which total 10</p> <p>Evidence that the total of the five numbers is 20, for example:</p> <ul style="list-style-type: none"> • sight of 5×4 or 4×5 • sight of 5 numbers totalling 20 within a trial and improvement method 	2	Numbers may be repeated.

Question	Answer	Marks	Further Information
25	50 (cm ²)	2	
	A complete method: (8 × 4) + (3 × their 6) or (3 × 10) + (their 5 × 4) or (8 × 10) – (their 5 × their 6) Arithmetic evidence of their 6 as 10 – 4 = wrong answer or Arithmetic evidence of their 5 as 8 – 3 = wrong answer must be shown.	M1	Method can contain any number of arithmetic errors, but must be a correct method. Do not allow (3 × 10) + (8 × 4) = 62 (cm ²)

Question	Answer	Marks	Further Information
26	135	1	

Question	Answer	Marks	Further Information
27	Triangular pyramid or Tetrahedron	1	Do not accept triangular prism or pyramid.

October 2017

Primary Checkpoint Mathematics – Mark Scheme
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Cambridge International Examinations
Cambridge Primary Checkpoint

MATHEMATICS

0845/01

Paper 1

April 2016

MARK SCHEME

Maximum Mark: 40

IMPORTANT NOTICE

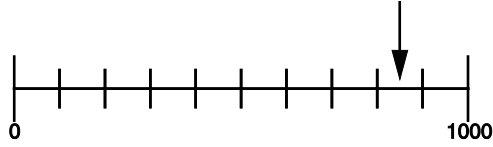
Mark Schemes have been issued on the basis of **one** copy per Assistant examiner and two copies per Team Leader.

This document consists of **12** printed pages.

Question number	1		
Part	Mark	Answer	Further Information
	1	(105) (150) 501 551 (555)	
Total	1		

Question number	2		
Part	Mark	Answer	Further Information
	1	$\begin{array}{r} 35 \\ + \\ 65 \end{array}$ $\begin{array}{r} 47 \\ + \\ 53 \end{array}$ $\begin{array}{r} 21 \\ + \\ 89 \end{array}$ $\begin{array}{r} 88 \\ + \\ 12 \end{array}$ $\begin{array}{r} 36 \\ + \\ 54 \end{array}$	
Total	1		

Question number	3		
Part	Mark	Answer	Further Information
	1	12 (shells)	
Total	1		

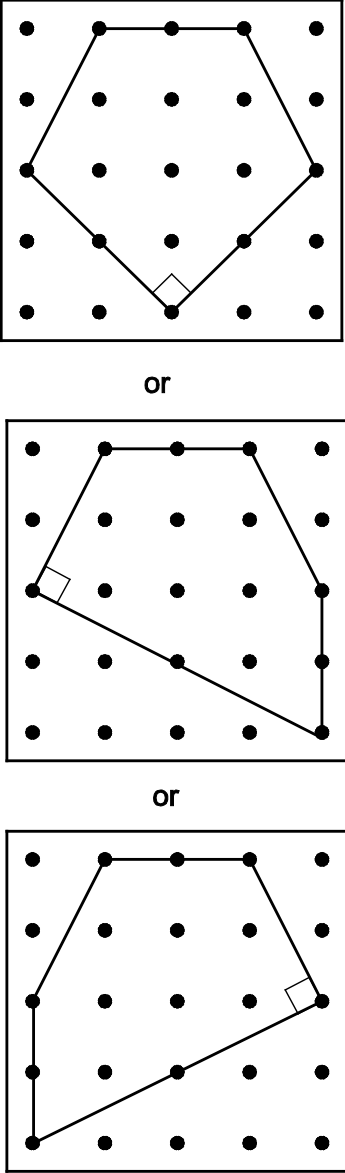
Question number	4		
Part	Mark	Answer	Further Information
	1		
Total	1		

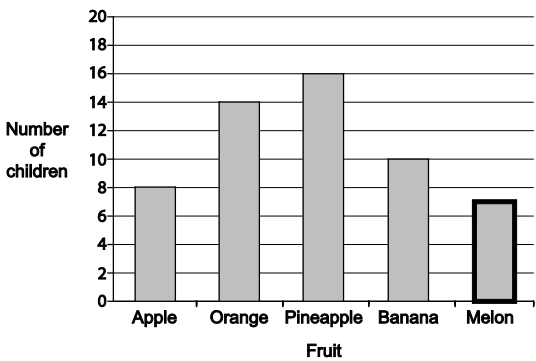
Question number	5					
Part	Mark	Answer				Further Information
	1	$\frac{8}{8}$	$\frac{5}{8}$	$\frac{3}{8}$	$\frac{2}{8}$	
Total	1					

Question number	6					
Part	Mark	Answer				Further Information
	1	Cube				
Total	1					

Question number	7					
Part	Mark	Answer				Further Information
	1	7 (teams)				
Total	1					

Question number	8					
Part	Mark	Answer				Further Information
	1	a c b				
Total	1					

Question number	9		
Part	Mark	Answer	Further Information
	2	 <p>Right angle does not need to be identified.</p>	For one mark, accept any pentagon with dots at vertices.
Total	2		

Question number	10														
Part	Mark	Answer	Further Information												
(a)	1	 <table border="1"> <caption>Number of children for different fruits</caption> <thead> <tr> <th>Fruit</th> <th>Number of children</th> </tr> </thead> <tbody> <tr> <td>Apple</td> <td>8</td> </tr> <tr> <td>Orange</td> <td>14</td> </tr> <tr> <td>Pineapple</td> <td>16</td> </tr> <tr> <td>Banana</td> <td>10</td> </tr> <tr> <td>Melon</td> <td>7</td> </tr> </tbody> </table>	Fruit	Number of children	Apple	8	Orange	14	Pineapple	16	Banana	10	Melon	7	
Fruit	Number of children														
Apple	8														
Orange	14														
Pineapple	16														
Banana	10														
Melon	7														
(b)	1	55													
Total	2														

Question number	11		
Part	Mark	Answer	Further Information
	1	2800	
Total	1		

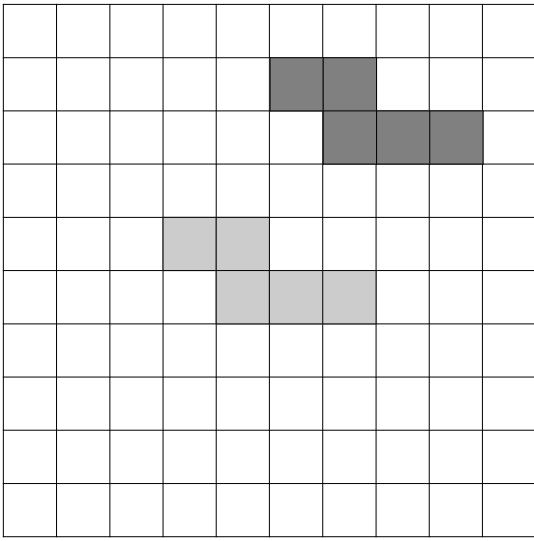
Question number	12		
Part	Mark	Answer	Further Information
	1	9th (birthday)	
Total	1		

Question number	13		
Part	Mark	Answer	Further Information
	1	0.6 0.7 0.5 0.2 0.3	
Total	1		

Question number	14		
Part	Mark	Answer	Further Information
	1	Accept any of the following answers: $72.3 > 65.4$ $72.3 > 64.5$ $72.4 > 65.3$ $72.4 > 63.5$ $72.5 > 64.3$ $72.5 > 63.4$	
Total	1		

Question number	15		
Part	Mark	Answer	Further Information
	1	(7,6)	Do not accept (6, 7) Do not accept $x = 7$ or $y = 6$
Total	1		

Question number	16		
Part	Mark	Answer	Further Information
	1	33 400	
Total	1		

Question number	17		
Part	Mark	Answer	Further Information
	1		Shape does not need to be shaded.
Total	1		

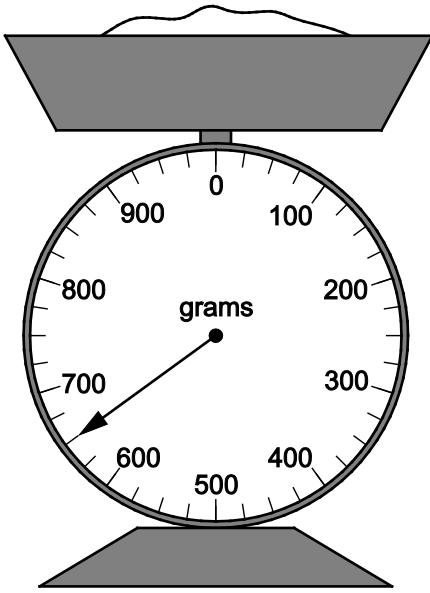
Question number	18		
Part	Mark	Answer	Further Information
	1	8.07 8.8 9.45 8.2 9.54 8.54	
Total	1		

Question number	19		
Part	Mark	Answer	Further Information
	1	6300	Accept any number between 6200 and 6400 inclusive.
Total	1		

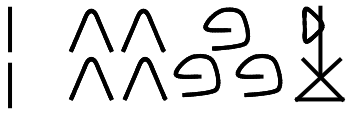
Question number	20		
Part	Mark	Answer	Further Information
	1	40 (%)	
Total	1		

Question number	21		
Part	Mark	Answer	Further Information
	1	966 (bricks)	
Total	1		

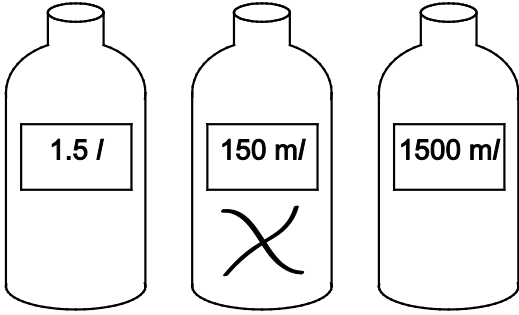
Question number	22		
Part	Mark	Answer	Further Information
	1	71.2	
Total	1		

Question number	23		
Part	Mark	Answer	Further Information
	1	 <p>Arrow points to 650 grams</p>	
Total	1		

Question number	24		
Part	Mark	Answer	Further Information
	1	900	Do not accept \$900.
Total	1		

Question number	25		
Part	Mark	Answer	Further Information
(a)	1	2736	
(b)	1		
Total	2		

Question number	26		
Part	Mark	Answer	Further Information
	1	2.74	
Total	1		

Question number	27		
Part	Mark	Answer	Further Information
	1		
Total	1		

Question number	28		
Part	Mark	Answer	Further Information
(a)	1	9 (grams)	Do not accept 6–15.
(b)	1	11 (grams)	
Total	2		

Question number	29		
Part	Mark	Answer	Further Information
	1	$\frac{2}{4} = 0.5$ or $\frac{2}{5} = 0.4$ or $\frac{4}{5} = 0.8$ or $\frac{8}{2} = 4.0$ or $\frac{8}{4} = 2.0$ or $\frac{4}{8} = 0.5$	Do not accept a blank box to represent zero.
Total	1		

Question number	30		
Part	Mark	Answer	Further Information
	1	14 (cm ²)	
Total	1		

Question number	31		
Part	Mark	Answer	Further Information
(a)	1	(\$)3.47	
(b)	1	(\$)6.53	Allow follow through mark for 10 – <i>their</i> (a) evaluated correctly.
Total	2		

Question number	32		
Part	Mark	Answer	Further Information
	1	8 (°C) and – 4 (°C)	Either order Do not accept 4 – (°C)
Total	1		

Question number	33		
Part	Mark	Answer	Further Information
	2		Award 1 mark for a triangle rotated 90° clockwise about a different point or Award 1 mark for a triangle rotated 90° anti-clockwise about O.
Total	2		

Question number	34		
Part	Mark	Answer	Further Information
	1	<p>Explanations that show that 390 must be halved, for example:</p> $13 \times 15 = \text{half of } 26 \times 15$ <p>The answer is not essential.</p>	<p>Do not accept 195 without a correct explanation.</p> <p>Do not accept an answer which carries out the long multiplication 13×15 with no reference to $26 \times 15 = 390$</p>
Total	1		



Cambridge International Examinations
Cambridge Primary Checkpoint

MATHEMATICS

0845/02

Paper 2

April 2016

MARK SCHEME

Maximum Mark: 40

IMPORTANT NOTICE

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This document consists of **9** printed pages and **1** blank page.

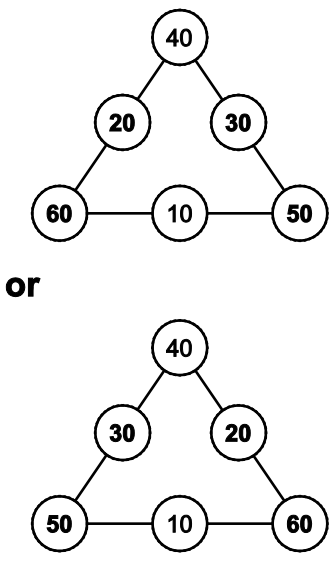
Question number	1			
Part	Mark	Answer	Further Information	
	1	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>		
Total	1			

Question number	2			
Part	Mark	Answer	Further Information	
	1	60 cm <input type="text" value="43 cm"/> 54 cm <input type="text" value="26 cm"/> 87 cm		
Total	1			

Question number	3			
Part	Mark	Answer	Further Information	
(a)	1	324		
(b)	1	24		
Total	2			

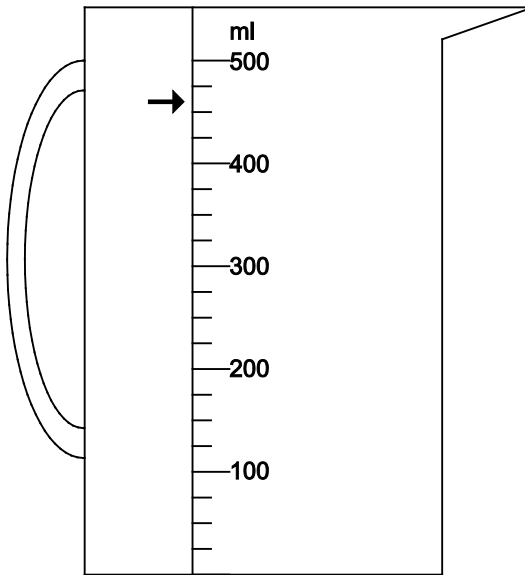
Question number	4			
Part	Mark	Answer	Further Information	
(a)	1	35 (cups)		
(b)	1	40 (cups)		
Total	2			

Question number	5		
Part	Mark	Answer	Further Information
	1	12 (m)	
Total	1		

Question number	6		
Part	Mark	Answer	Further Information
	2	 <p>or</p>	<p>Award 1 mark for any two sides correct.</p> <p>or</p> <p>For a complete diagram with 3 sides adding to 120 that uses the same multiple of 10 more than once.</p>
Total	2		

Question number	7		
Part	Mark	Answer	Further Information
	1	$\frac{3}{4}$ (cake)	Accept 0.75 or any equivalent.
Total	1		

Question number	8		
Part	Mark	Answer	Further Information
	1	7.4 + 2.6 or 7.6 + 2.4	Numbers can be in either order.
Total	1		

Question number	9		
Part	Mark	Answer	Further Information
	1		Accept an arrow in the range 450 ml to 475 ml, closer to 450 ml.
Total	1		

Question number	10														
Part	Mark	Answer	Further Information												
	1	<table border="1"> <thead> <tr> <th></th> <th>True</th> <th>Not true</th> </tr> </thead> <tbody> <tr> <td>odd + odd = odd</td> <td></td> <td>✓</td> </tr> <tr> <td>even – odd = even</td> <td></td> <td>✓</td> </tr> <tr> <td>odd × even = even</td> <td>✓</td> <td></td> </tr> </tbody> </table>		True	Not true	odd + odd = odd		✓	even – odd = even		✓	odd × even = even	✓		
	True	Not true													
odd + odd = odd		✓													
even – odd = even		✓													
odd × even = even	✓														
Total	1														

Question number	11		
Part	Mark	Answer	Further Information
	1	Sharifa has 68 (balloons) Kimi has 17 (balloons) Neera has 17 (balloons)	
Total	1		

Question number	12		
Part	Mark	Answer	Further Information
	2	A with the following answers: Area of $A = 28 \text{ cm}^2$ Area of $B = 24 \text{ cm}^2$ Area of $C = 27 \text{ cm}^2$ Ignore omission of units, but if units are used they must be correct.	Award 1 mark for three correct answers without a choice. or Award 1 mark for three correct methods containing arithmetic errors that leads to a correct follow through choice. or Award 1 mark for correct A , B and C with correct choice of A but incorrect units given. Do not award a mark for a correct choice only.
Total	2		

Question number	13		
Part	Mark	Answer	Further Information
(a)	1	90 (ml)	
(b)	1	3 (scoops)	
Total	2		

Question number	14		
Part	Mark	Answer	Further Information
	1	5 10 18 26 36 42	
Total	1		

Question number	15		
Part	Mark	Answer	Further Information
(a)	1	(a =) 135 (°)	
(b)	1	(b =) 57 (°)	
Total	2		

Question number	16		
Part	Mark	Answer	Further Information
	1	< < >	
Total	1		

Question number	17		
Part	Mark	Answer	Further Information
(a)	1	31.6	
(b)	1	$31\frac{3}{5}$	Accept $31\frac{6}{10}$ Accept correct follow through from <i>their</i> (a)
Total	2		

Question number	18		
Part	Mark	Answer	Further Information
	1	9	
Total	1		

Question number	19		
Part	Mark	Answer	Further Information
(a)	1	16.4×3.3	
(b)	1	$140.643 \div 2.7$	
Total	2		

Question number	20		
Part	Mark	Answer	Further Information
	2	Labels on vertical axis, reading down: 10 000 8000 6000 4000 2000 Labels on the horizontal axis, reading across: 0 – 19 20 – 39 40 – 59 60 – 79 80+	Award 1 mark for each correctly labelled axis. The labels on the horizontal axis must give the whole group label e.g. 0 – 19
Total	2		

Question number	21		
Part	Mark	Answer	Further Information
(a)	1	1 hour 33 minutes or 93 minutes	Do not accept 1.33 or any answer with no units.
(b)	1	10 38 bus	Accept 3 rd bus or 10 : 38 or 1105 at Pentwell.
Total	2		

Question number	22		
Part	Mark	Answer	Further Information
	1	3 and 13	
Total	1		

Question number	23		
Part	Mark	Answer	Further Information
	1	$\boxed{0.63} \times \boxed{10} = \boxed{6.3}$ $\boxed{63} \div \boxed{100} = \boxed{0.63}$	
Total	1		

Question number	24		
Part	Mark	Answer	Further Information
	1	70 and 80	Numbers can be written in any order
Total	1		

Question number	25		
Part	Mark	Answer	Further Information
(a)	1	A and C	Either order
(b)	1	B	
Total	2		

Question number	26		
Part	Mark	Answer	Further Information
(a)	1	1 and 3 and 6 and 10 or triangle numbers	
(b)	1	21	
Total	2		

Question number	27		
Part	Mark	Answer	Further Information
	2	110 and 130 and 150 with no extras	Accept for 1 mark any two of the three correct answers with no more than one extra.
Total	2		



Cambridge International Examinations
Cambridge Primary Checkpoint

MATHEMATICS

0845/01

Paper 1

October 2016

MARK SCHEME

Maximum Mark: 40

IMPORTANT NOTICE

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Question number	1		
Part	Mark	Answer	Further Information
	1		
Total	1		

Question number	2		
Part	Mark	Answer	Further Information
	1	7190 (km)	
Total	1		

Question number	3		
Part	Mark	Answer	Further Information
	1	72 (oranges)	
Total	1		

Question number	4		
Part	Mark	Answer	Further Information
	2		All 3 diagrams must be correct for 2 marks. Award 1 mark for any two correct diagrams.
Total	2		

Question number	5	CPM	
Part	Mark	Answer	Further Information
	1	504 514 5004 (5040)	
Total	1		

Question number	6		
Part	Mark	Answer	Further Information
	1	500	
Total	1		

Question number	7		
Part	Mark	Answer	Further Information
	1	2	
Total	1		

Question number	8																																																														
Part	Mark	Answer	Further Information																																																												
(a)	1	<table border="1"> <tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>1</td></tr> <tr><td>1</td><td>1</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr> <tr><td>2</td><td>2</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr> <tr><td>3</td><td>3</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>1</td></tr> <tr><td>4</td><td>4</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>1</td><td>2</td></tr> <tr><td>5</td><td>5</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>1</td><td>2</td><td>3</td></tr> </table>	1	2	3	4	5	6	7	8	9	1	1	1	1	2	3	4	5	6	7	8	2	2	2	3	4	5	6	7	8	9	3	3	3	4	5	6	7	8	9	1	4	4	4	5	6	7	8	9	1	2	5	5	5	6	7	8	9	1	2	3	
1	2	3	4	5	6	7	8	9	1																																																						
1	1	1	2	3	4	5	6	7	8																																																						
2	2	2	3	4	5	6	7	8	9																																																						
3	3	3	4	5	6	7	8	9	1																																																						
4	4	4	5	6	7	8	9	1	2																																																						
5	5	5	6	7	8	9	1	2	3																																																						
(b)	1	20, 40, 60																																																													
Total	2																																																														

Question number	9		
Part	Mark	Answer	Further Information
	1		
Total	1		

Question number	10		
Part	Mark	Answer	Further Information
	1	(4, 1)	Coordinates must be written in the correct order.
Total	1		

Question number	11		
Part	Mark	Answer	Further Information
	2		Award 1 mark for 2 or 3 correct lines drawn.
Total	2		

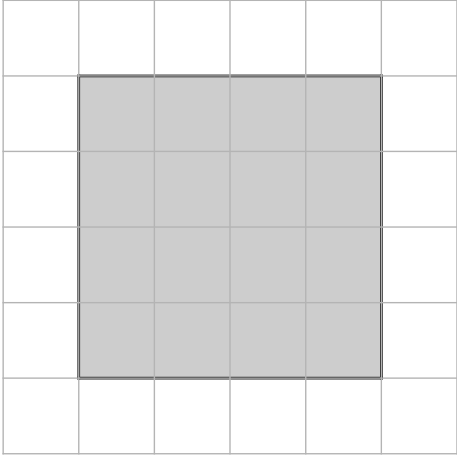
Question number	12		
Part	Mark	Answer	Further Information
(a)	1	87 (passengers)	
(b)	1	18 (weeks)	
(c)	1	3.56	
Total	3		

Question number	13		
Part	Mark	Answer	Further Information
	1	$60000 + 3000 + 900 + 40 + 2$	
Total	1		

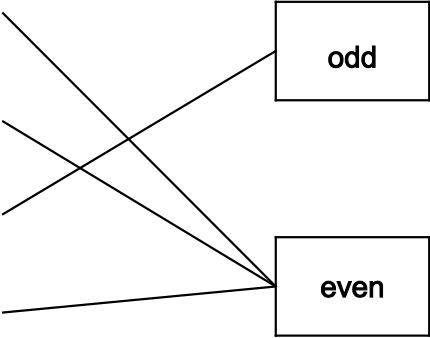
Question number	14		
Part	Mark	Answer	Further Information
	2		<p>Award 1 mark for any 2 or 3 correct.</p> <p>Accept equivalent fractions or mixed numbers.</p>
Total	2		

Question number	15		
Part	Mark	Answer	Further Information
	1	360 – 18	<p>An answer is not required.</p> <p>The mark is awarded for evidence of subtracting 18</p> <p>Do not award the mark for 342 only.</p> <p>Do not award the mark for long multiplication of 19×18</p>
Total	1		

Question number	16		
Part	Mark	Answer	Further Information
(a)	1	<p>Points plotted; 15 (°C) at 6:00 pm and 10 (°C) 8:00 pm</p>	
(b)	1	19 (°C)	Accept answers between 18.5 (°C) and 19.5 (°C) inclusive.
Total	2		

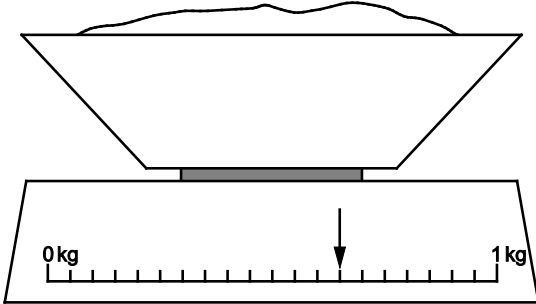
Question number	17		
Part	Mark	Answer	Further Information
	1	4 × 4 square placed anywhere on the grid 	Do not accept a square that does not use the grid lines.
Total	1		

Question number	18		
Part	Mark	Answer	Further Information
	1	600 (chairs)	
Total	1		

Question number	19	CPM100606	
Part	Mark	Answer	Further Information
	1	64×10 37×4 63×7 14×3 	
Total	1		

Question number	20									
Part	Mark	Answer	Further Information							
	2	<table border="1"> <tr> <td>Less than one half</td> <td>Equal to one half</td> <td>Greater than one half</td> </tr> <tr> <td>$\frac{5}{12}$ $\frac{45}{100}$</td> <td>$\frac{10}{20}$</td> <td>$\frac{4}{6}$ $\frac{6}{10}$</td> </tr> </table>	Less than one half	Equal to one half	Greater than one half	$\frac{5}{12}$ $\frac{45}{100}$	$\frac{10}{20}$	$\frac{4}{6}$ $\frac{6}{10}$	Award 1 mark for 3 or 4 fractions correctly placed. Any fraction placed in more than one column should be marked as incorrectly placed.	
Less than one half	Equal to one half	Greater than one half								
$\frac{5}{12}$ $\frac{45}{100}$	$\frac{10}{20}$	$\frac{4}{6}$ $\frac{6}{10}$								
Total	2									
Question number	21									
Part	Mark	Answer	Further Information							
	1	(0.36) 0.38 0.46 0.48 (0.64) 0.74								
Total	1									

Question number	22			
Part	Mark	Answer	Further Information	
	1	$\frac{3}{5}$		
Total	1			

Question number	23			
Part	Mark	Answer	Further Information	
	1	Arrow points to 650 grams 		
Total	1			

Question number	24		
Part	Mark	Answer	Further Information
	2	270 (passengers)	Award 1 mark for a correct method containing any number of arithmetic errors, e.g. $315 - (315 \div 7)$ or $\frac{6}{7}$ of 315 or for sight of 45
Total	2		

Question number	25		
Part	Mark	Answer	Further Information
	1	83(mm)	Accept 82 – 84(mm)
Total	1		

Question number	26		
Part	Mark	Answer	Further Information
	1	14th November	Do not allow just 14 (th)
Total	1		

Question number	27		
Part	Mark	Answer	Further Information
(a)	1	14	
(b)	1	15	Do not accept 24 – 9 without answer.
Total	2		

Question number	28		
Part	Mark	Answer	Further Information
	2	<p> </p> <p>or</p> <p> </p>	<p>Award 1 mark for any 2 or 3 lines of 3 counters with a total of 1.2</p> <p>or</p> <p>all lines of 3 counters having a total of 1.2 but some counters are used more than once (not all counters used).</p>
Total	2		

Question number	29		
Part	Mark	Answer	Further Information
	1	1.8 (3) (9) 12 (18) 36	
Total	1		



Cambridge International Examinations
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MATHEMATICS

0845/02

Paper 2

October 2016

MARK SCHEME

Maximum Mark: 40

IMPORTANT NOTICE

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Question number	1		
Part	Mark	Answer	Further Information
(a)	1	74	
(b)	1	48	
Total	2		

Question number	2		
Part	Mark	Answer	Further Information
(a)	1	20 (children)	
(b)	1	○ ⊂	
Total	2		

Question number	3		
Part	Mark	Answer	Further Information
	1	1290, 1291 or 1292	
Total	1		

Question number	4		
Part	Mark	Answer	Further Information
	1	179 (days)	
Total	1		

Question number	5		
Part	Mark	Answer	Further Information
(a)	1	7:50 (am)	
(b)	1	1:15 pm	Accept 13:15 or any other correct alternative. Do not accept 1:15 only.
Total	2		

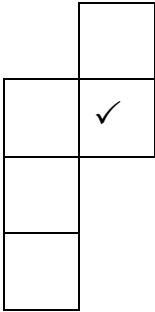
Question number	6		
Part	Mark	Answer	Further Information
(a)	1	(A =) 80 (B =) 250 (accept 248 – 252 inclusive)	
(b)	1	Accept any mark between 3.8 cm and 4.6 cm along the scale.	
Total	2		

Question number	7		
Part	Mark	Answer	Further Information
	1	2 hundredths (2 tenths) 2 tens 2 hundreds	
Total	1		

Question number	8		
Part	Mark	Answer	Further Information
	1	3 and 5 (in any order) 4	
Total	1		

Question number	9		
Part	Mark	Answer	Further Information
(a)	1	$13 \times 100 = 130 \times $ <input type="text" value="10"/>	
(b)	1	$260 \div $ <input type="text" value="10"/> $= 2600 \div 100$	
Total	2		

Question number	10		
Part	Mark	Answer	Further Information
	1	2	
Total	1		

Question number	11		
Part	Mark	Answer	Further Information
	1		
Total	1		

Question number	12		
Part	Mark	Answer	Further Information
	1		Condone loops through 4 and / or 100 e.g.
Total	1		

Question number	13		
Part	Mark	Answer	Further Information
	1	4.5×2	
Total	1		

Question number	14		
Part	Mark	Answer	Further Information
	1	4 (7) 9 (11) 14 (19) 20	
Total	1		

Question number	15										
Part	Mark	Answer	Further Information								
	2	<table style="border-collapse: collapse; margin-left: 20px;"> <tr> <td style="border: 1px solid black; padding: 5px;">5</td> <td style="border: 1px solid black; padding: 5px;">9</td> <td style="padding: 0 5px;">.</td> <td style="border: 1px solid black; padding: 5px;">4</td> </tr> <tr> <td style="padding-right: 10px;">+</td> <td style="border: 1px solid black; padding: 5px;">6</td> <td style="border: 1px solid black; padding: 5px;">3</td> <td style="border: 1px solid black; padding: 5px;">8</td> </tr> </table>	5	9	.	4	+	6	3	8	Award 1 mark for 1 or 2 digits correct.
5	9	.	4								
+	6	3	8								
Total	2										

Question number	16		
Part	Mark	Answer	Further Information
	1		
Total	1		

Question number	17		
Part	Mark	Answer	Further Information
(a)	1	$(-7, -6)$	
(b)	1		
Total	2		

Question number	18		
Part	Mark	Answer	Further Information
	1		
Total	1		

Question number	19		
Part	Mark	Answer	Further Information
	1	<input type="text" value="-0.2"/> <input type="text" value="0.3"/> 0.8 1.3 1.8 <input type="text" value="2.3"/>	
Total	1		

Question number	20		
Part	Mark	Answer	Further Information
(a)	1	75 (ringgits)	Accept 73 – 77 inclusive.
(b)	1	100 (dollars)	
Total	2		

Question number	21		
Part	Mark	Answer	Further Information
	1	(\$)1.04	
Total	1		

Question number	22		
Part	Mark	Answer	Further Information
	1	Any of the following answers: 4.170(m), 4.171(m), 4.172 (m), 4.173(m) 4.174(m), 4.175(m), 4.176(m), 4.177(m), 4.178(m), 4.179(m), 4.180(m)	
Total	1		

Question number	23		
Part	Mark	Answer	Further Information
	1	40 (%)	
Total	1		

Question number	24	CPM	
Part	Mark	Answer	Further Information
	1	No is ticked together with a correct explanation e.g. <ul style="list-style-type: none"> • $\frac{1}{3} = 33.3\%$ • $30\% = \frac{30}{100}$ or $\frac{3}{10}$ • $30\% \times 3 = 90\%$ but $\frac{1}{3} \times 3 = 1$ (or 100%) 	
Total	1		

Question number	25		
Part	Mark	Answer	Further Information
	1	60 and 90	
Total	1		

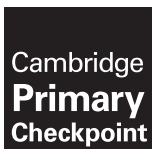
Question number	26		
Part	Mark	Answer	Further Information
(a)	1	36.6 (km)	
(b)	1	22.5 (miles)	
Total	2		

Question number	27		
Part	Mark	Answer	Further Information
	2	<p>Ticks the L shape</p> <p>and</p> <p>Shows calculations giving the two perimeters, for example:</p> <ul style="list-style-type: none"> Perimeters are 32 and 34 cm <p>or</p> <p>Explains that both shapes have the same width but the L-shape is taller, for example:</p> <ul style="list-style-type: none"> Both shapes have a width of 10 cm but the L-shape is taller Both shapes are the same width but the L-shape is 1 cm taller so the perimeter is 2 cm larger than the other shape 	<p>Award 1 mark for sight of 32 and 34 cm without a choice being made.</p> <p>or</p> <p>Award 1 mark for a correct method which involves adding all sides of the respective shapes but contains arithmetic errors leading to a choice.</p>
Total	2		

Question number	28		
Part	Mark	Answer	Further Information
	1		
Total	1		

Question number	29		
Part	Mark	Answer	Further Information
	1	13 (books) or 33 (books)	
Total	1		

Question number	30		
Part	Mark	Answer	Further Information
	1		
Total	1		



Cambridge International Examinations
Cambridge Primary Checkpoint

MATHEMATICS

0845/01

Paper 1

October 2015

MARK SCHEME

Maximum Mark: 40

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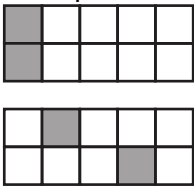
This document consists of **10** printed pages.

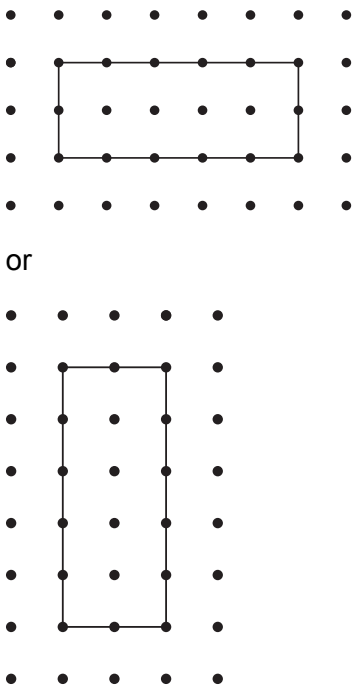
Question number	1		
Part	Mark	Answer	Further Information
(a)	1	33	
(b)	1	350	
Total	2		

Question number	2		
Part	Mark	Answer	Further Information
	1	152	
Total	1		

Question number	3		
Part	Mark	Answer	Further Information
(a)	1	3760	
(b)	1	480	
Total	2		

Question number	4		
Part	Mark	Answer	Further Information
	1	Saturday	Allow clear abbreviations.
Total	1		

Question number	5		
Part	Mark	Answer	Further Information
	1	Accept any 2 squares shaded, for example: 	Accept shading equivalent to 2 whole squares if part squares are used.
Total	1		

Question number	6		
Part	Mark	Answer	Further Information
(a)	1	Draws a rectangle 5 cm by 2 cm, e.g. 	Do not accept rectangles whose vertices are not dots on the grid. Do not accept diagonal lines.
(b)	1	14 (cm)	Follow through from (a) provided the sides of the rectangle are horizontal and vertical, no diagonals.
Total	2		

Question number	7		
Part	Mark	Answer	Further Information
	1	1.62 (m)	
Total	1		

Question number	8			
Part	Mark	Answer	Further Information	
(a)	1	Shoe colour	Tally	Frequency
		Black	### II	7
		Blue	###	5
		Brown	IIII	4
		White	II	2
(b)	1	Black		
Total	2			

Question number	9		
Part	Mark	Answer	Further Information
	1	210	
Total	1		

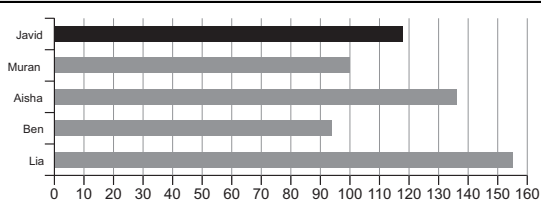
Question number	10		
Part	Mark	Answer	Further Information
(a)	1	4 (blocks)	
(b)	1	65 (cm)	
Total	2		

Question number	11		
Part	Mark	Answer	Further Information
	1	2×12 3×8 4×6	
Total	1		

Question number	12		
Part	Mark	Answer	Further Information
(a)	1	2600	
(b)	1	3570	
Total	2		

Question number	13		
Part	Mark	Answer	Further Information
	1	3981	
Total	1		

Question number	14		
Part	Mark	Answer	Further Information
	1	-3	
Total	1		

Question number	15														
Part	Mark	Answer	Further Information												
(a)	1	 <table border="1"> <thead> <tr> <th>Student</th> <th>Score</th> </tr> </thead> <tbody> <tr> <td>Javid</td> <td>115</td> </tr> <tr> <td>Muran</td> <td>100</td> </tr> <tr> <td>Aisha</td> <td>135</td> </tr> <tr> <td>Ben</td> <td>90</td> </tr> <tr> <td>Lia</td> <td>155</td> </tr> </tbody> </table>	Student	Score	Javid	115	Muran	100	Aisha	135	Ben	90	Lia	155	
Student	Score														
Javid	115														
Muran	100														
Aisha	135														
Ben	90														
Lia	155														
(b)	1	118													
Total	2														

Question number	16		
Part	Mark	Answer	Further Information
(a)	1	60°	
(b)	1	isosceles	
Total	2		

Question number	17		
Part	Mark	Answer	Further Information
	1	1477	
Total	1		

Question number	18		
Part	Mark	Answer	Further Information
(a)	1	38.4	
(b)	1	768	
Total	2		

Question number	19		
Part	Mark	Answer	Further Information
(a)	1	18 000	
(b)	1	1.8	
Total	2		

Question number	20		
Part	Mark	Answer	Further Information
(a)	1	2 hundreds 2 tens 2 units 2 tenths 2 hundredths	
(b)	1	5 thousands	
Total	2		

Question number	21		
Part	Mark	Answer	Further Information
	1	5 + 10 (cm) 6 + 9 (cm) 7 + 8 (cm)	in any order
Total	1		

Question number	22		
Part	Mark	Answer	Further Information
	1	5.40 or 05.4	
Total	1		

Question number	23		
Part	Mark	Answer	Further Information
(a)	1	3	
(b)	1	<p>An explanation that compares the frequency of a 2 occurring with the frequency of each of the other numbers occurring, for example:</p> <ul style="list-style-type: none"> • There is only one 2 and there are more ones and threes • 2 is the least common number • There are more ones and threes than twos. <p>or</p> <p>An explanation that refers to the probability of 2 occurring, for example:</p> <ul style="list-style-type: none"> • probability of 2 is only $\frac{1}{8}$ 	
Total	2		

Question number	24		
Part	Mark	Answer	Further Information
	1	15(°C)	
Total	1		

Question number	25		
Part	Mark	Answer	Further Information
	2	14 (beads)	Award 1 mark for: Showing 35 split into groups of 5 (3 large and 2 small beads). or Gives the answer 21 (number of large beads required).
Total	2		

Question number	26		
Part	Mark	Answer	Further Information
	1	An example of 2 square numbers with an even total. The square numbers must both be odd or both be even, for example $1 + 1 = 2$ $4 + 16 = 20$	The correct calculation must be shown for the award of the mark.
Total	1		

Question number	27		
Part	Mark	Answer	Further Information
	1		
Total	1		

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MATHEMATICS

0845/02

Paper 2

October 2015

MARK SCHEME

Maximum Mark: 40

IMPORTANT NOTICE

Mark Schemes have been issued on the basis of **one** copy per Assistant examiner and two copies per Team Leader.

This document consists of **11** printed pages and **1** blank page.

Question number	1		
Part	Mark	Answer	Further Information
(a)	1	28 and 46	
(b)	1	43 and 52	
Total	2		

Question number	2		
Part	Mark	Answer	Further Information
(a)	1	16 and 22	
(b)	1	5, 1 and -1	
Total	2		

Question number	3		
Part	Mark	Answer	Further Information
	1	290 (°)	
Total	1		

Question number	4		
Part	Mark	Answer	Further Information
	1	$\frac{6}{10}$	Accept equivalent fractions such as $\frac{3}{5}$ or $\frac{60}{100}$
Total	1		

Question number	5		
Part	Mark	Answer	Further Information
	2	352 354 423 425 432 435	Award 2 marks for 6 correct numbers with no additional incorrect numbers. Award 1 mark for 6 correct numbers with any number of additional numbers. OR 4 or 5 correct numbers with/without additional numbers.
Total	2		

Question number	6		
Part	Mark	Answer	Further Information
	1	<div style="display: flex; flex-direction: column; align-items: flex-start;"> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">$\frac{1}{2}$ of 56</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">$\frac{1}{3}$ of 78</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">$\frac{1}{4}$ of 92</div> <div style="border: 1px solid black; padding: 5px;">$\frac{1}{5}$ of 125</div> </div> <div style="display: flex; flex-direction: column; align-items: flex-end; margin-left: 20px;"> <p>22</p> <p>23</p> <p>24</p> <p>25</p> <p>26</p> <p>27</p> <p>28</p> </div>	
Total	1		

Question number	7												
Part	Mark	Answer	Further Information										
	2	<table border="1"> <tr> <td>$\frac{3}{4}$</td> <td>✓</td> <td></td> </tr> <tr> <td>0.05</td> <td></td> <td>✓</td> </tr> <tr> <td>$\frac{34}{100}$</td> <td></td> <td>✓</td> </tr> </table>	$\frac{3}{4}$	✓		0.05		✓	$\frac{34}{100}$		✓	Award 1 mark for two correct ticks.	
$\frac{3}{4}$	✓												
0.05		✓											
$\frac{34}{100}$		✓											
Total	2												

Question number	8			
Part	Mark	Answer	Further Information	
	1	60×21 in either order		
Total	1			

Question number	9			
Part	Mark	Answer	Further Information	
	1	42.5 (cm)		
Total	1			

Question number	10		
Part	Mark	Answer	Further Information
(a)	1		
(b)	1	2 squares to the right and 3 squares down or 3 squares down and 2 squares to the right.	
Total	2		

Question number	11		
Part	Mark	Answer	Further Information
	1	44 (bags)	
Total	1		

Question number	12		
Part	Mark	Answer	Further Information
	1	No AND An explanation that numbers in the sequence always end in 1 <u>or</u> 6 or An explanation that numbers in the 5 times table always end in 0 or 5 or An explanation that correctly identifies that the starting number of the sequence needs to be 0 or a multiple of 5 or An explanation that the numbers in the sequence are always 1 more than a multiple of 5	
Total	1		

Question number	13		
Part	Mark	Answer	Further Information
	1	0.8 <input type="text" value="1.1"/> 1.4 <input type="text" value="1.7"/>	
Total	1		

Question number	14		
Part	Mark	Answer	Further Information
	1	 	
Total	1		

Question number	15		
Part	Mark	Answer	Further Information
(a)	1	15 (km)	
(b)	1	Any explanation that shows he had stopped, for example: Having a rest Stopped to mend a puncture	
Total	2		

Question number	16		
Part	Mark	Answer	Further Information
	2	$<$ $>$ $=$ $=$	For 1 mark any 3 answers must be correct.
Total	2		

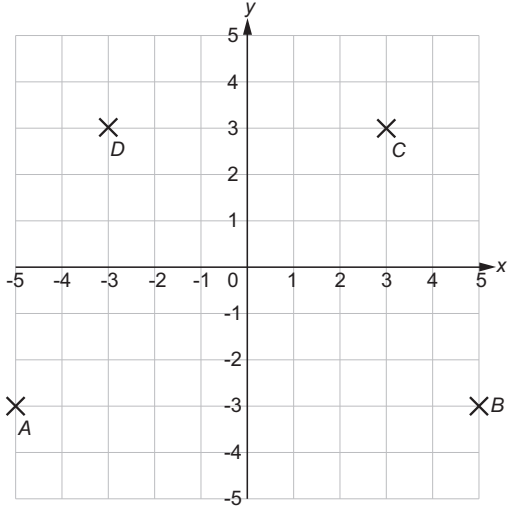
Question number	17		
Part	Mark	Answer	Further Information
	1	(7) 9 10 (11) 15 (17)	
Total	1		

Question number	18		
Part	Mark	Answer	Further Information
	1	$\frac{1}{2} = \frac{3}{6}$ or $\frac{2}{1} = \frac{6}{3}$ or $\frac{1}{3} = \frac{2}{6}$ or $\frac{3}{1} = \frac{6}{2}$ or $\frac{2}{3} = \frac{4}{6}$ or $\frac{3}{2} = \frac{6}{4}$ or $\frac{2}{4} = \frac{3}{6}$ or $\frac{4}{2} = \frac{6}{3}$	
Total	1		

Question number	19		
Part	Mark	Answer	Further Information
	1	(\$) 6.40	
Total	1		

Question number	20		
Part	Mark	Answer	Further Information
(a)	1	12 (edges)	
(b)	1	8 (vertices)	
Total	2		

Question number	21		
Part	Mark	Answer	Further Information
(a)	1	68 (minutes)	
(b)	1	Cecity	
Total	2		

Question number	22		
Part	Mark	Answer	Further Information
(a)	1		
(b)	1	(isosceles) trapezium	<p>If the shape plotted in (a) is not a trapezium then “trapezium” should not be awarded a mark.</p> <p>If the shape plotted in (a) is a quadrilateral which is correctly named, one mark should be awarded.</p>
Total	2		

Question number	23		
Part	Mark	Answer	Further Information
(a)	1	11	
(b)	1	38	
Total	2		

Question number	24		
Part	Mark	Answer	Further Information
	2	$ \begin{array}{r} \boxed{3} \boxed{5} \boxed{3} \boxed{7} \\ - \quad \boxed{8} \boxed{4} \boxed{4} \boxed{8} \\ \hline \boxed{2} \boxed{6} \boxed{9} \boxed{2} \boxed{2} \end{array} $	For 1 mark accept any 3 or 4 correct values.
Total	2		

Question number	25		
Part	Mark	Answer	Further Information
	2	28 (pens)	Award 1 mark for evidence of a complete method. e.g. $(12 \div 3) \times 7$ or for sight of 40 indicating total number of pens.
Total	2		

Question number	26		
Part	Mark	Answer	Further Information
(a)	1	6	
(b)	1	4 (%)	
Total	2		

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SCIENCE

0846/01

Paper 1

For Examination from 2014

SPECIMEN MARK SCHEME

45 minutes

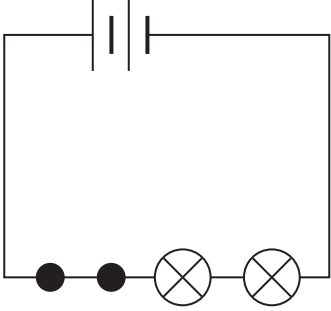
MAXIMUM MARK: 50

This document consists of **9** printed pages and **1** blank page.

Question	1										
Part	Mark	Answer	Further Information								
	2	<table border="1"> <thead> <tr> <th>definition</th> <th>life process</th> </tr> </thead> <tbody> <tr> <td>(responding and reacting)</td> <td>(sensitivity)</td> </tr> <tr> <td>(producing young / offspring)</td> <td>reproduction</td> </tr> <tr> <td>(turning food into energy)</td> <td>respiration</td> </tr> </tbody> </table>	definition	life process	(responding and reacting)	(sensitivity)	(producing young / offspring)	reproduction	(turning food into energy)	respiration	Each correct answer = 1 mark
definition	life process										
(responding and reacting)	(sensitivity)										
(producing young / offspring)	reproduction										
(turning food into energy)	respiration										
Total	2										

Question	2		
Part	Mark	Answer	Further Information
(a)	2	feature: mottled skin explanation: for camouflage / hide from predators or feature: eyes above Explanation: see better or feature: flat explanation: hide from predators	Accept blends in / looks like sand / camouflaged. feature = 1 mark explanation = 1 mark
(b)	1	method: rod and line explanation: less of this fish removed/caught.	Both correct = 1 mark.
Total	3		

Question	3		
Part	Mark	Answer	Further Information
(a)	1	1 day or 24 hours or 23 hours 56 minutes	
(b)	1	<p>The Sun does not move. <input checked="" type="checkbox"/></p> <p>The Sun goes round the Moon. <input type="checkbox"/></p> <p>The Sun orbits the Earth <input type="checkbox"/></p> <p>The Sun travels round the Earth. <input type="checkbox"/></p>	If more than one box ticked = 0 marks
Total	2		

Question	4		
Part	Mark	Answer	Further Information
(a)	1	(idea of) close / operate / press the switch	
(b)	2		<p>2 cells and 2 lamps and 1 switch = 2 marks</p> <p>1 cell and 2 lamps and 1 switch = 1 mark</p> <p>2 cells and 1 lamp and 1 switch = 1 mark</p> <p>2 cells and 2 lamps and no switch = 1 marks</p> <p>Accept switch open or closed</p>
Total	3		

Question	5		
Part	Mark	Answer	Further Information
	3	They are made of metal . The wires are covered in plastic . Any material that is a non-conductor is an insulator .	Accept named materials e.g. copper Accept rubber / insulator Each correct sentence = 1 mark
Total	3		

Question	6																				
Part	Mark	Answer	Further Information																		
(a)	1	tighten the drum skin <input checked="" type="checkbox"/> slacken the drum skin <input type="checkbox"/> strike the drum harder <input type="checkbox"/> strike the drum softer <input type="checkbox"/>	If more than one box ticked = 0 marks																		
(b)	3	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">true</th> <th style="text-align: center;">false</th> </tr> </thead> <tbody> <tr> <td>Sound can travel around corners.</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Sound can spread out in all directions.</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Sound cannot travel through solids.</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td>Sound can travel through liquids.</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Sound can travel in a vacuum.</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </tbody> </table>		true	false	Sound can travel around corners.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sound can spread out in all directions.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sound cannot travel through solids.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Sound can travel through liquids.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Sound can travel in a vacuum.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	5 correct = 3 marks 3 or 4 correct = 2 marks 2 correct = 1 mark If 2 boxes ticked for a statement = 0 marks for that statement
	true	false																			
Sound can travel around corners.	<input checked="" type="checkbox"/>	<input type="checkbox"/>																			
Sound can spread out in all directions.	<input checked="" type="checkbox"/>	<input type="checkbox"/>																			
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Sound can travel through liquids.	<input checked="" type="checkbox"/>	<input type="checkbox"/>																			
Sound can travel in a vacuum.	<input type="checkbox"/>	<input checked="" type="checkbox"/>																			
Total	4																				

Question	7		
Part	Mark	Answer	Further Information
(a)	1	turns into a liquid	Accept turns into salt solution / salt water
(b)	1	0 (°C)	
(c)	1	The greater/higher the mass of salt in the solution the lower the melting point.	Accept the smaller/lower the mass of salt in the solution the higher the melting point
(d)	1	-5 (°C)	Accept 4 g / grams
(e)	1	make results more reliable / to check results	Accept to make sure the results are reliable Do not accept to make the results more accurate
Total	5		

Question	8		
Part	Mark	Answer	Further Information
(a)	2	C, D, B in that order	3 correct = 2 marks 2 correct = 1 mark 1 correct = 0 marks
(b)	1	A and C	More than 1 answer circled = 0 marks
(c)	1	(pulling force) increases	
Total	4		

Question	9		
Part	Mark	Answer	Further Information
(a)	1	plankton / plant → fish → penguin	All correct = 1 mark
(b)	2	(leaves) → insect → (small) bird → owl	Correct order = 1 mark All three arrows in correct direction = 1 mark
Total	3		

Question	10		
Part	Mark	Answer	Further Information
(a)	1	16(mm)	Accept 250 g
(b)	2	Any two from: - repeat the investigation - use different size tubes - use different size masses - use longer / shorter pieces of paper - use longer / shorter tubes	
(c)	1	(idea of) less mass / lighter in mass	
Total	4		

Question	11		
Part	Mark	Answer	Further Information
(a)	1	(some) coffee dissolves / a solution is made	
(b)	1	<p>all of the coffee powder is soluble</p> <p>some of the coffee powder is insoluble</p> <p>all of the coffee powder is insoluble</p> <p>some of the coffee powder is frozen</p>	More than one answer circled = 0 marks
(c)	2	<p>The brown solid on the filter paper is the residue.</p> <p>The brown solution in the beaker is the filtrate.</p>	<p>Each answer = 1 mark</p> <p>Accept mixture instead of filtrate</p>
(d)	1	<p>goes colourless <input type="checkbox"/></p> <p>becomes a lighter brown <input type="checkbox"/></p> <p>stays the same <input type="checkbox"/></p> <p>becomes a darker brown <input checked="" type="checkbox"/></p>	More than one answer ticked = 0 marks
Total	5		

Question	12																
Part	Mark	Answer	Further Information														
(a)	2	Any two from: - same type of seed - height dropped - mass / weight of seed - speed of fan - distance from fan	Each correct answer = 1 mark														
(b)	3	<table border="1"> <caption>Data for Bar Chart</caption> <thead> <tr> <th>Seed Number</th> <th>Distance in cm</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>8</td> </tr> <tr> <td>2</td> <td>7</td> </tr> <tr> <td>3</td> <td>8.5</td> </tr> <tr> <td>4</td> <td>8</td> </tr> <tr> <td>5</td> <td>4.5</td> </tr> <tr> <td>6</td> <td>9</td> </tr> </tbody> </table>	Seed Number	Distance in cm	1	8	2	7	3	8.5	4	8	5	4.5	6	9	All correct = 3 marks Any 3 correct = 2 marks Any 2 correct = 1 mark
Seed Number	Distance in cm																
1	8																
2	7																
3	8.5																
4	8																
5	4.5																
6	9																
(c)	1	5															
(d)	1	animal dispersal explosive dispersal self dispersal water dispersal wind dispersal	More than one answer circled = 0 marks														
Total	7																

Question	13																						
Part	Mark	Answer	Further Information																				
(a)	2	<table border="1"> <thead> <tr> <th>Mixture</th> <th>chemical reaction</th> <th>makes a solution</th> <th>does not react or make a solution</th> </tr> </thead> <tbody> <tr> <td>A</td> <td></td> <td></td> <td>✓</td> </tr> <tr> <td>B</td> <td></td> <td>✓</td> <td></td> </tr> <tr> <td>C</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>D</td> <td></td> <td>✓</td> <td></td> </tr> </tbody> </table>	Mixture	chemical reaction	makes a solution	does not react or make a solution	A			✓	B		✓		C	✓			D		✓		4 correct = 2 marks 2 or 3 correct = 1 mark 1 correct = 0 marks
Mixture	chemical reaction	makes a solution	does not react or make a solution																				
A			✓																				
B		✓																					
C	✓																						
D		✓																					
(b)	1	C																					
(c)	1	(idea of) the ingredients chemically reacting to form something else	Accept that it is a chemical reaction/gas given off/bubbles given off Do not accept 'it cannot be reversed'																				
(d)	1	(idea of) evaporating the water to leave the salt behind	Accept heat / boil.																				
Total	5																						

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SCIENCE

0846/02

Paper 2

For Examination from 2014

SPECIMEN MARK SCHEME

45 minutes

MAXIMUM MARK: 50

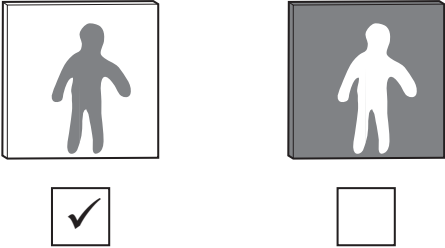
This document consists of **10** printed pages.

Question	1		
Part	Mark	Answer	Further Information
	2	<p>The Sun takes 1 year to orbit the Earth. <input type="checkbox"/></p> <p>The Earth takes 1 year to orbit the Sun. <input checked="" type="checkbox"/></p> <p>The Earth takes 24 hours to orbit the Sun. <input type="checkbox"/></p> <p>The Earth spins on its axis once every 24 hours. <input checked="" type="checkbox"/></p> <p>The Earth spins on its axis once every year. <input type="checkbox"/></p>	<p>2 ticks, both correct = 2 marks</p> <p>2 ticks, 1 correct = 1 mark</p> <p>3 ticks, 2 correct = 1 mark</p> <p>3 ticks, 1 correct = 0 mark</p> <p>4 or 5 ticks = 0 mark</p>
Total	2		

Question	2														
Part	Mark	Answer	Further Information												
(a)	1	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>living things</th> <th>things that have never lived</th> </tr> </thead> <tbody> <tr> <td>kangaroo</td> <td>rock</td> </tr> <tr> <td>rat</td> <td>sand</td> </tr> <tr> <td>seaweed</td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </tbody> </table>	living things	things that have never lived	kangaroo	rock	rat	sand	seaweed						Both columns correct = 1 mark
living things	things that have never lived														
kangaroo	rock														
rat	sand														
seaweed															
(b)	1	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">it grows</td> <td style="width: 20%; text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td>it feels warm</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>it can get smaller</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>it makes young ones</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table>	it grows	<input checked="" type="checkbox"/>	it feels warm	<input type="checkbox"/>	it can get smaller	<input type="checkbox"/>	it makes young ones	<input checked="" type="checkbox"/>	2 ticks, both correct = 1 mark 2 ticks, 1 correct = 0 marks 3 ticks, 2 correct = 0 marks 4 ticks = 0 marks				
it grows	<input checked="" type="checkbox"/>														
it feels warm	<input type="checkbox"/>														
it can get smaller	<input type="checkbox"/>														
it makes young ones	<input checked="" type="checkbox"/>														
Total	2														

Question	3														
Part	Mark	Answer	Further Information												
(a)	1	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>solid</th> <th>liquid</th> <th>gas</th> </tr> </thead> <tbody> <tr> <td>butter</td> <td>orange juice</td> <td>steam</td> </tr> <tr> <td>chocolate</td> <td>water</td> <td style="background-color: #cccccc;"></td> </tr> <tr> <td>ice</td> <td style="background-color: #cccccc;"></td> <td style="background-color: #cccccc;"></td> </tr> </tbody> </table>	solid	liquid	gas	butter	orange juice	steam	chocolate	water		ice			All correct = 1 mark
solid	liquid	gas													
butter	orange juice	steam													
chocolate	water														
ice															
(b)	1	melting													
(c)	1	freezing													
(d)	1	(turns to) steam / water vapour / a gas / evaporates	Do not accept it gets hot												
Total	4														

Question	4										
Part	Mark	Answer	Further Information								
(a)	2	<table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>term</th> <th>meaning</th> </tr> </thead> <tbody> <tr> <td>producer</td> <td>an animal that eats another animal</td> </tr> <tr> <td>predator</td> <td>a green plant that makes its own food</td> </tr> <tr> <td>prey</td> <td>an animal that is eaten</td> </tr> </tbody> </table>	term	meaning	producer	an animal that eats another animal	predator	a green plant that makes its own food	prey	an animal that is eaten	3 correct = 2 marks 1 or 2 correct = 1 mark
term	meaning										
producer	an animal that eats another animal										
predator	a green plant that makes its own food										
prey	an animal that is eaten										
(b)	1	<p>a plant that eats another plant</p> <p>a plant that eats an animal</p> <p style="text-align: center;">an animal that eats a plant</p> <p>a plant that eats plants and animals</p>	More than 1 circle = 0 marks								
Total	3										

Question	5		
Part	Mark	Answer	Further Information
(a)	1	The puppet makes an image called a shadow on the screen.	
(b)	1	move the puppet away from the light / move puppet towards screen	
(c)	1		Both boxes ticked = 0 marks
(d)	1	no image / no shadow	Accept the word nothing or no 'light coming through' or blank screen
Total	4		

Question	6		
Part	Mark	Answer	Further Information
(a)	1	B	Accept 78 2 or more answers = 0 marks
(b)	1	C	Accept 100 2 or more answers = 0 marks
(c)	2	During boiling liquid changes into a gas . During freezing liquid changes into a solid .	Each correct sentence = 1 mark
Total	4		

Question	7		
Part	Mark	Answer	Further Information
	1	measure the shoots <input type="checkbox"/> put the pots in the same place <input checked="" type="checkbox"/> measures each shoot on a different day <input type="checkbox"/> uses 4 different pots <input type="checkbox"/>	1 tick, correct = 1 mark 2 ticks, 1 correct = 0 marks 3 ticks, 1 correct = 0 marks 4 ticks = 0 marks
Total	1		

Question	8		
Part	Mark	Answer	Further Information
(a)	1	B and C	
(b)	1	D	
(c)	2	animals hooks to fur / they stick to the animal	Each correct answer = 1 mark
Total	4		

Question	9		
Part	Mark	Answer	Further Information
	3	<p>measurement</p> <p>mass of tablet</p> <p>temperature of the water</p> <p>volume of water</p>	<p>equipment</p> <p>ruler</p> <p>thermometer</p> <p>beaker</p> <p>measuring cylinder</p> <p>balance</p>
		<p>Each correct answer = 1 mark</p> <p>Each measurement must only have one line coming from it</p>	
Total	3		

Question	10		
Part	Mark	Answer	Further Information
(a)	1	predaceous insects	Do not accept insects
(b)	2	foxes, owls, snakes	Any order 3 correct = 2 marks 2 correct = 1 mark 1 correct = 0 marks
(c)	1	Any one from: plants → mice → foxes plants → mice → owls plants → mice → snakes	
Total	4		

Question	11		
Part	Mark	Answer	Further Information
(a)	1	vibration(s)	
(b)	1	hits a smaller key	
(c)	1	13:00	Accept 1 pm
(d)	1	gets louder and then softer/quieter	Accept goes up and then goes down
(e)	1	insulates from sound	Accept absorbs / muffles sound or does not let sound through / foam is sound proof / foam stops sound
Total	5		

Question	12		
Part	Mark	Answer	Further Information
(a)	1	chalk	
(b)	1	sugar solution	Do not accept solution
(c)	1	2 (g)	
Total	3		

Question	13																						
Part	Mark	Answer	Further Information																				
(a)	2	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 30%;">from</th> <th style="width: 10%;"></th> <th style="text-align: right; width: 30%;">to</th> <th style="width: 30%;"></th> </tr> </thead> <tbody> <tr> <td>the body</td> <td style="text-align: center;">→</td> <td>the heart</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>the lungs</td> <td style="text-align: center;">→</td> <td>the body</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>the heart</td> <td style="text-align: center;">→</td> <td>the lungs</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td>the heart</td> <td style="text-align: center;">→</td> <td>the body</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </tbody> </table>	from		to		the body	→	the heart	<input type="checkbox"/>	the lungs	→	the body	<input type="checkbox"/>	the heart	→	the lungs	<input checked="" type="checkbox"/>	the heart	→	the body	<input checked="" type="checkbox"/>	1 mark for each
from		to																					
the body	→	the heart	<input type="checkbox"/>																				
the lungs	→	the body	<input type="checkbox"/>																				
the heart	→	the lungs	<input checked="" type="checkbox"/>																				
the heart	→	the body	<input checked="" type="checkbox"/>																				
(b)	2	oxygen nutrients / food	Either order Allow O ₂ for oxygen Accept hormones, water, enzymes, sugar, proteins, glucose																				
(c)	1	carbon dioxide	Accept CO ₂																				
Total	5																						

Question	14		
Part	Mark	Answer	Further Information
(a)	1	good conductor of electricity	Do not accept 'good conductor' unqualified
(b)	2	good conductor of heat high melting point	Do not accept 'good conductor' unqualified Each correct answer = 1 mark 3 reasons, and 2 correct = 1 mark 3 reasons, and 1 correct = 0 marks 4 reasons = 0 marks
Total	3		

Question	15		
Part	Mark	Answer	Further Information
(a)	1	ruler / rule	
(b)	1	conclusion measurement method <u>prediction</u>	More than 1 circled = 0 marks
(c)	1	clamp base to bench / wear goggles (or eye protection / spectacles)	Accept any suitable safety precaution relevant to this investigation
Total	3		



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
Cambridge International Primary Achievement Test

MATHEMATICS

0842/01

Paper 1

May/June 2010

MARK SCHEME

Maximum Mark : 39



This document consists of **13** printed pages and **3** blank pages.



Mathematics mark schemes – Achievement Test

Guidelines for marking test papers

These mark schemes are designed to provide you with all the information necessary to mark the Primary Mathematics Achievement Tests. As far as possible, the mark schemes give you full guidance regarding acceptable and unacceptable alternative answers and, where appropriate, include examples of student work to illustrate the marking points. However, it is not always possible to predict all the alternative answers that may be produced by students and there could be places where the marker will have to use their professional judgement. In these cases it is essential that such judgement be applied consistently.

The guidelines below should be followed throughout (**unless the mark scheme states otherwise**):

- A correct answer should always be awarded full marks even if the working shown is wrong.
- Where more than one mark is available for a question the mark scheme explains where each mark should be awarded. In some cases marks are available for demonstration of the correct method even if the final answer is incorrect. The method marks can be awarded if the correct method is used but a mistake has been made in the calculation, resulting in a wrong answer. Method marks can also be awarded if the calculation is set up and performed correctly but incorrect values have been used, e.g. due to misreading the question or a mistake earlier in a series of calculations.
- If a question uses the answer to a previous question or part question that the student answered incorrectly, all available marks can be awarded for the latter question if appropriate calculations are performed correctly using the value carried forward. Places where such consideration should be made are indicated in the mark schemes. In these cases, it is not possible to provide all the alternative acceptable answers and the marker must follow the student's working to determine whether credit should be given or not.
- Half marks should not be awarded and at no point should an answer be awarded more than the maximum number of marks available, regardless of the quality of the answer.
- If the student has given more than one answer, the marks can be awarded if all the answers given are correct. However, if correct and incorrect answers are given together, marks should not be awarded (marks for correct working out can still be gained).
- If the answer line is blank but the correct answer is given elsewhere, e.g. an annotation on a graph or at the end of the working out, the marks can be awarded provided it is clear that the student has understood the requirements of the question.
- If the response on the answer line is incorrect but the correct answer is shown elsewhere, full marks can still be awarded if the student has made the error when copying the answer onto the answer line. If the incorrect final answer is the result of redundant additional working after the correct answer had been reached, the marks can be awarded provided the extra work does not contradict that already done.
- Each question and part question should be considered independently and marks for one question should not be disallowed if they are contradicted by working or answers in another question or part question.

- Any legible crossed-out work that has not been replaced can be marked; but, if work has been replaced, the crossed-out part should be ignored.
- If the student's response is numerically or algebraically equivalent to the answer in the mark scheme, the mark should be given unless a particular form of answer was specified by the question.
- Diagrams, symbols or words are acceptable for explanations or responses.
- Where students are required to indicate the correct answer in a specific way, e.g. by underlining, marks should be awarded for any unambiguous indication, e.g. circling or ticking.
- Any method of setting out working should be accepted.
- Standard rules for acceptable formats of answers involving units, money, duration and time are given overleaf.

Each question on the test paper has a box beside it for the teacher to record the mark obtained. It is advisable to use these boxes so that students, and others looking at the test papers, can clearly see where the marks have been awarded.

It should also be noted that marking in red ink and using the mark boxes is an essential requirement for the Achievement tests.

A working marksheet, together with instructions for its completion, is included in this mark scheme. A completed copy should be despatched with the moderation sample.

General rules for alternative answers

In most places on the mark schemes acceptable and unacceptable alternative answers are given in detail, however some general rules are given overleaf and are not necessarily repeated in full for each question that they apply.

Number and Place Value

The table shows various general rules in terms of acceptable decimal answers.

Accept
Accept omission of leading zero if answer is clearly shown, e.g. .675
Accept trailing zeros, unless the question has asked for a specific number of decimal places, e.g. 0.7000
Always accept appropriate trailing zeros, e.g. 3.00m; 5.000kg
Accept a comma as a decimal point if that is the convention that you have taught the students, e.g. 0,638

Units

For questions involving quantities, e.g. length, mass, time or money, correct units must be given in the answer. The table shows acceptable and unacceptable versions of the answer 1.85m.

	Correct answer	Also accept	Do not accept
Units are not given on answer line and question does not specify unit for the answer.	1.85m	Correct conversions provided that the unit is stated, e.g. 1m 85cm 185cm 1850mm 0.00185km	1.85 185m
If the unit is given on the answer line, e.g. .....m	.....1.85..... m	Correct conversions, provided the unit is stated unambiguously, e.g. .....185cm..... m	.....185.....m.....1850..... m etc.
If the question states the unit that the answer should be given in a specified unit, e.g. "Give your answer in metres"	1.85m	1.85 1m 85cm	185; 1850 Any conversions to other units, e.g. 185cm

Note: if the answer line is left blank but the correct answer is given elsewhere on the page, it can be marked correct if the units match those on the answer line or are unambiguously stated.

Money

For questions involving money, it is essential that appropriate units are given in the answer.

The table shows acceptable and unacceptable versions.

	Accept	Do not accept
If the amount is in dollars and cents, the answer should be given to two decimal places.	\$0.30 \$9 or \$9.00	
If units are not given on answer line	Any unambiguous indication of the correct amount, e.g. 30 cents; 30 c \$0.30; \$0.30c; \$0.30cents \$0-30; \$0=30; \$0:30	30 or 0.30 without a unit Incorrect or ambiguous answers, e.g. \$0.3; \$30; \$30cents; 0.30cents
If \$ is shown on the answer line	\$..... 0.30 \$..... 0.30 cents Accept all unambiguous indications, as shown above	\$..... 30 \$..... 30 cents (this cannot be accepted because it is ambiguous, but if the dollar sign is deleted it becomes acceptable)
If cents is shown on the answer line	.....30.....cents \$0.30.....cents	.....0.30.....cents \$30.....cents

Duration

Accept any unambiguous method of showing duration and all reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs).

Accept	Do not accept
Any unambiguous indication using any reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs), e.g. 2 hours 30 minutes; 2h 30m; 02h 30m 5 min 24 sec; 00h 05m 24s	Incorrect or ambiguous formats, e.g. 2.30; 2.3; 2.30 hours; 2.30 min; 2h 3; 2.3h
Any correct conversion with appropriate units, e.g. 2.5 hours; 150 mins 324 seconds	2.5; 150 324
Also accept unambiguous digital stopwatch format, e.g. 02:30:00 00:05:24; 05:24s	Do not accept ambiguous indications, e.g. 02:30 5.24

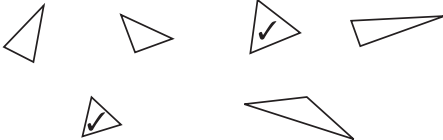
Time

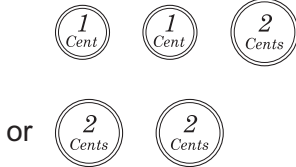
There are many ways to write times, in both numbers and words, and marks should be awarded for any unambiguous method. Accept time written in numbers or words unless there is a specific instruction in the question. Some examples are given in the table.

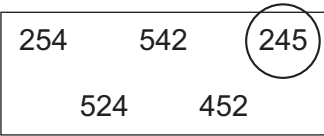
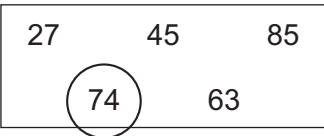
Accept	Do not accept
<p>Any unambiguous indication of correct answer in numbers, words or a combination of the two, e.g. 07:30, 19:00</p> <p>0730; 07 30; 07.30; 07,30; 07-30; 7.30; 730 a.m.; 7.30am; 7.30 in the morning</p> <p>Half past seven (o'clock) in the morning Thirty minutes past seven am Also accept: O-seven-thirty</p> <p>1900; 19 00; 19_00 etc.</p> <p>Nineteen hundred (hours) Seven o'clock in the afternoon/evening</p> <p>Accept correct conversion to 12-hour clock, e.g. 16:42 4:42 p.m.</p> <p>Sixteen forty two Four-forty-two in the afternoon/evening Four forty two p.m. Forty two (minutes) past four p.m. Eighteen (minutes) to five in the evening</p> <p>Also accept a combination of numbers and words, e.g. 18 minutes to 5 p.m. 42 minutes past 4 in the afternoon</p>	<p>Incorrect or ambiguous formats, e.g.</p> <p>07.3; 073; 07 3; 730; 73; 7.3; 7.3am; 7.30p.m</p> <p>19; 190; 19 000; 19.00am; 7.00am</p> <p>4.42am; 0442; 4.42</p> <p>Forty two (minutes) past sixteen Eighteen (minutes) to seventeen</p>

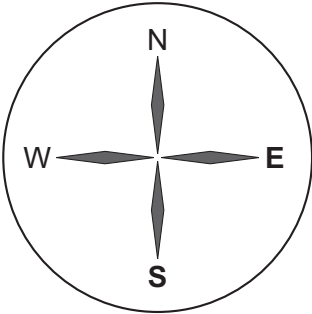
Question	Mark	Answer	
1 3Nc13	1	170	

Question	Mark	Answer	
2 3Nn6	1	5 (5) 5	

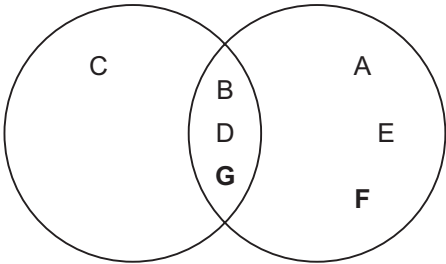
Question	Mark	Answer	
3 4Ss2	1		Both must be indicated for 1 mark.

Question	Mark	Answer	
4 a 3P7	1	16 (cents)	
b 3P7	1	4 (cents)	If part (a) incorrect, award mark if 20 minus part (a) is correct.
c 3P8	1		If part (b) incorrect, award mark if part (c) is correct follow-through from (b) using coins shown.

Question	Mark	Answer	
5 a 3Nn5	1		
b 3Nn5	1		

Question	Mark	Answer	
6 3Sp2	1		Both directions must be given to earn the mark.

Question	Mark	Answer	
7 a 3Sm3	1	300 (centimetres)	
b 3Sm3	1	2000 (metres)	

Question	Mark	Answer	
8 3D1	1	<p style="text-align: center;">curved straight</p> 	Both letters must be correct to earn the mark.

Question	Mark	Answer	
9 5Nc9	1	$4 \times 8 = \boxed{32}$ $9 \times \boxed{6} = 54$	Both correct for 1 mark.

Question	Mark	Answer	
10 4Sp10	1	2 1 4 3	

Question	Mark	Answer	
11 5P1	1	13 (boxes)	

Question	Mark	Answer	
12 4D4	1	20	

Question	Mark	Answer	
13 5P6	1	11 (hours)	

Question	Mark	Answer	
14 4Sm4	1	650 (ml)	

Question	Mark	Answer	
15 6Nc7	1	1500	

Question	Mark	Answer	
16 5Sm5	1	Any line 56 – 58 mm inclusive	Do not accept if a ruler has not been used.

Question	Mark	Answer	
17 a 4Nn14	1	Any 3 squares should be shaded	
b 4Nn14	1	Tim	
c 4Nn14	1	$\frac{4}{12}$	

Question	Mark	Answer	
18	5Nc4	1	12.05

Question	Mark	Answer	
19 a	6Nn1	1	468
b	6Nn1	1	5.7

Question	Mark	Answer	
20	5Sp2	1	Pair 2 are perpendicular lines. Pair 1 are parallel lines.

Both sentences must be correct to earn the mark.

Question	Mark	Answer	
21 a	6Nc8	1	24.5
b	6Nc8	1	1.4

Question	Mark	Answer	
22 a	4Sm9	1	0602 (answer shown here is written as given in timetable)
b	4Sm9	1	20 (minutes)

Also accept:
06:02, 06.02, 6:02 am., 6.02 am.

Question	Mark	Answer	
23	6Ss3	1	7

Question	Mark	Answer	
24	4P1	2	21

2 marks for correct answer.
If final answer is incorrect, 1 mark can be awarded if there is evidence of working out
 $\frac{1}{4}$ of 56 = 14

Question	Mark	Answer	
25 a 6D4	1	5	
b 6D4	1	10	
c 6D5	1	9	

Question	Mark	Answer										
26 a 6P6	1	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>18</td> <td>8</td> <td>10</td> </tr> <tr> <td>4</td> <td>12</td> <td>20</td> </tr> <tr> <td>14</td> <td>16</td> <td>6</td> </tr> </table>	18	8	10	4	12	20	14	16	6	Both numbers must be correct to earn the mark.
18	8	10										
4	12	20										
14	16	6										
b 6P6	1	36										

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A. INSTRUCTIONS FOR COMPLETING WORKING MARK SHEET

1. Complete the information at the head of the form.
2. List the candidates in an order which will allow ease of transfer of information to a computer-printed mark sheet (MS1) at a later stage (i.e. in candidate index number order, where this is known).
3. Enter each candidate's marks on this form as follows:
 - a) In the question columns, enter the marks awarded.
 - b) In the columns headed 'Total Mark', enter the total mark awarded.
4. Ensure that the addition of marks is independently checked.
5. Both the teacher completing this form and the internal moderator should check the form and complete the bottom portion.

B. PROCEDURES FOR EXTERNAL MODERATION

1. University of Cambridge International Examinations (CIE) sends a computer-printed mark sheet (MS1) to each centre showing the name and index number of each candidate. Transfer the total internally moderated mark for each candidate from this WORKING MARK SHEET to the computer-printed mark sheet (MS1).
2. Despatch the top copy of the computer-printed mark sheet (MS1) to CIE. The deadlines for receipt of this completed document are 15 June for the June examination and 16 November for the November examination.
3. Send samples of the candidates' work covering the full ability range, together with this form and the second copy of MS1, by 15 June for the June examination and 16 November for the November examination.
4. If there are 10 or fewer candidates entering the Achievement Test, send all the scripts for every candidate.
5. If there are more than 10 candidates, send the scripts that contributed to the final mark for the number of candidates as follows. The marks of the candidates' work selected should cover the whole mark range with marks spaced as evenly as possible from the top mark to the lowest mark.

number of candidates entered	number of candidates whose work is required
11-50	10
51-100	15
above 100	20

6. If different teachers have prepared classes, select the samples from the classes of different teachers.
7. CIE reserves the right to ask for further samples of scripts.





UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
Cambridge International Primary Achievement Test

MATHEMATICS

0842/02

Paper 2

May/June 2010

MARK SCHEME

Maximum Mark : 39



This document consists of **14** printed pages and **2** blank pages.



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- Standard rules for acceptable formats of answers involving units, money, duration and time are given overleaf.

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The table shows various general rules in terms of acceptable decimal answers.

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Accept trailing zeros, unless the question has asked for a specific number of decimal places, e.g. 0.7000
Always accept appropriate trailing zeros, e.g. 3.00m; 5.000kg
Accept a comma as a decimal point if that is the convention that you have taught the students, e.g. 0,638

Units

For questions involving quantities, e.g. length, mass, time or money, correct units must be given in the answer. The table shows acceptable and unacceptable versions of the answer 1.85m.

	Correct answer	Also accept	Do not accept
Units are not given on answer line and question does not specify unit for the answer.	1.85m	Correct conversions provided that the unit is stated, e.g. 1m 85cm 185cm 1850mm 0.00185km	1.85 185m
If the unit is given on the answer line, e.g. .....m	.....1.85..... m	Correct conversions, provided the unit is stated unambiguously, e.g. .....185cm..... m	.....185.....m.....1850..... m etc.
If the question states the unit that the answer should be given in a specified unit, e.g. "Give your answer in metres."	1.85m	1.85 1m 85cm	185; 1850 Any conversions to other units, e.g. 185cm

Note: if the answer line is left blank but the correct answer is given elsewhere on the page, it can be marked correct if the units match those on the answer line or are unambiguously stated.

Money

For questions involving money, it is essential that appropriate units are given in the answer.

The table shows acceptable and unacceptable versions.

	Accept	Do not accept
If the amount is in dollars and cents, the answer should be given to two decimal places.	\$0.30 \$9 or \$9.00	
If units are not given on answer line	Any unambiguous indication of the correct amount, e.g. 30 cents; 30 c \$0.30; \$0.30c; \$0.30cents \$0-30; \$0=30; \$0:30	30 or 0.30 without a unit Incorrect or ambiguous answers, e.g. \$0.3; \$30; \$30cents; 0.30cents
If \$ is shown on the answer line	\$..... 0.30 \$..... 0.30 cents Accept all unambiguous indications, as shown above	\$..... 30 \$..... 30 cents (this cannot be accepted because it is ambiguous, but if the dollar sign is deleted it becomes acceptable)
If cents is shown on the answer line	.....30.....cents \$0.30.....cents	.....0.30.....cents \$30.....cents

Duration

Accept any unambiguous method of showing duration and all reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs).

Accept	Do not accept
Any unambiguous indication using any reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs), e.g. 2 hours 30 minutes; 2h 30m; 02h 30m 5 min 24 sec; 00h 05m 24s	Incorrect or ambiguous formats, e.g. 2.30; 2.3; 2.30 hours; 2.30 min; 2h 3; 2.3h
Any correct conversion with appropriate units, e.g. 2.5 hours; 150 mins 324 seconds	2.5; 150 324
Also accept unambiguous digital stopwatch format, e.g. 02:30:00 00:05:24; 05:24s	Do not accept ambiguous indications, e.g. 02:30 5.24

Time

There are many ways to write times, in both numbers and words, and marks should be awarded for any unambiguous method. Accept time written in numbers or words unless there is a specific instruction in the question. Some examples are given in the table.

Accept	Do not accept
<p>Any unambiguous indication of correct answer in numbers, words or a combination of the two, e.g. 07:30, 19:00</p> <p>0730; 07 30; 07.30; 07,30; 07-30; 7.30; 730 a.m.; 7.30am; 7.30 in the morning</p> <p>Half past seven (o'clock) in the morning Thirty minutes past seven am Also accept: O-seven-thirty</p> <p>1900; 19 00; 19_00 etc.</p> <p>Nineteen hundred (hours) Seven o'clock in the afternoon/evening</p> <p>Accept correct conversion to 12-hour clock, e.g. 16:42 4:42 p.m.</p> <p>Sixteen forty two Four-forty-two in the afternoon/evening Four forty two p.m. Forty two (minutes) past four p.m. Eighteen (minutes) to five in the evening</p> <p>Also accept a combination of numbers and words, e.g. 18 minutes to 5 p.m. 42 minutes past 4 in the afternoon</p>	<p>Incorrect or ambiguous formats, e.g.</p> <p>07.3; 073; 07 3; 730; 73; 7.3; 7.3am; 7.30p.m</p> <p>19; 190; 19 000; 19.00am; 7.00am</p> <p>4.42am; 0442; 4.42</p> <p>Forty two (minutes) past sixteen Eighteen (minutes) to seventeen</p>

Question	Mark	Answer	
1 3Nn4	1	<div style="display: flex; align-items: center; gap: 10px;"> 140 209 238 345 499 </div>	Both correct for 1 mark. Accept any indication.

Question	Mark	Answer	
2 3Sp3	1		All three ticked or otherwise indicated for 1 mark.

Question	Mark	Answer	
3 3Nc5	1	219	

Question	Mark	Answer	
4 3Sm9	1		All three correct for 1 mark.

Question	Mark	Answer	
5 6P1	1	<div style="display: flex; flex-direction: column; gap: 10px;"> <div style="display: flex; align-items: center; gap: 10px;"> difference + </div> <div style="display: flex; align-items: center; gap: 10px;"> product - </div> <div style="display: flex; align-items: center; gap: 10px;"> share × </div> <div style="display: flex; align-items: center; gap: 10px;"> sum ÷ </div> </div>	All 3 lines must be correct to earn the mark.

Question	Mark	Answer	
6 4Sp7	1	360 (°)	

Question	Mark	Answer	
7 a 3Nn8	1	22 (years old)	
b 3Nn8	1	2 (years old)	
c 3Nn8	1	11 (years old)	

Question	Mark	Answer	
8 a 5Sm5	1	72 (mm)	Accept answer between 70 and 74.
b 5Sm5	1	Correct straight line	Accept lines which measure from 47 to 49 mm, inclusive. Lines must be drawn with a ruler and must not have any change of direction.

Question	Mark	Answer	
9 3P2	2	$\begin{array}{l} \boxed{8} \boxed{1} \times \boxed{4} = 324 \\ \boxed{5} \boxed{4} \times \boxed{6} = 324 \\ \boxed{3} \boxed{6} \times \boxed{9} = 324 \end{array}$	1 mark for each correct calculation. Maximum of 2 marks.

Question	Mark	Answer	
10 4Ss4	1	<input type="checkbox"/> tetrahedron <input checked="" type="checkbox"/> square pyramid <input type="checkbox"/> triangular prism <input type="checkbox"/> cone	

Question		Mark	Answer		
11	5Nn23 5Nn20	2	Fraction	Decimal	Percentage
			$\frac{1}{4}$	0.25	25%
			$\frac{1}{2}$	0.5 Accept 0.50	50%
					1 mark for each correct answer. Maximum of 2 marks.

Question		Mark	Answer		
12	5Nc13	1	85		

Question		Mark	Answer		
13	4Ss3	1			
			All three must be indicated for 1 mark.		

Question		Mark	Answer		
14	4Nc6	1	156 remainder 1		

Question		Mark	Answer		
15	a	5D2	1	(\$) 82	
	b	5D2	1	Adult tickets = <u>3</u>	
1			Child tickets = <u>4</u>		
					1 mark for each answer.

Question	Mark	Answer	
16 5P6	2	(\$) 30	<p>If answer is incorrect award 1 mark for a complete correct method.</p> <p>For example, $40 - (40 \div 4) =$ wrong answer.</p> <p>Or</p> <p>1 mark for correct calculation of 25% of 40. 10 must be seen.</p>

Question	Mark	Answer	
17 5Sp6	1	110°	

Question	Mark	Answer	
18 a 6Sp1	1	$(-4, 2)$	
b 6Sp1	1	$(2, -3)$	

Question	Mark	Answer	
19 6Nc2	1	$3 \times (5 + 2) \times 4 = 84$	

Question	Mark	Answer	
20 6Sm7	1	The time in New Mexico is 4 pm. The time in Oregon is 3 pm.	Both sentences must be correct to earn the mark.

Question	Mark	Answer	
21 6Nn9	1	2, 3, 7	<p>Accept $2 \times 3 \times 7$ in any order</p> <p>All numbers must be given for 1 mark.</p> <p>Accept in any order.</p>

Question	Mark	Answer	
22 6Nn11	1	$\frac{1}{3}$	

Question	Mark	Answer	
23 a 6D5	1	3	
b 6D4	1	1	

Question	Mark	Answer	
24 6Nn15	1	4.534 4.345 3.544 3.454	All in correct order for 1 mark.

Question	Mark	Answer	
25 5P6	3	(\$) 40	<p>If final answer incorrect, award marks as follows:</p> <p>Award 2 mark for evidence of both 5 and 10</p> <p>Award 1 mark for evidence of either 5 or 10</p> <p>Award 1 mark for evidence of $25 + 5 + 10 =$ correct answer, where one of 5 or 10 is incorrect</p>

Question	Mark	Answer	
26 6P6	1	7.2	

Question	Mark	Answer	
27 6Nc1	1	<p>All six cards used once, in any order to correctly make a sum of 4.71.</p> <p>For example,</p> $ \begin{array}{r} \boxed{3} \cdot \boxed{2} \boxed{5} \\ + \\ \boxed{1} \cdot \boxed{4} \boxed{6} \\ \hline 4 \cdot 7 \quad 1 \end{array} $	Do not accept cards used more than once or numbers other than those given.

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University of Cambridge International Examinations is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.

A. INSTRUCTIONS FOR COMPLETING WORKING MARK SHEET

1. Complete the information at the head of the form.
2. List the candidates in an order which will allow ease of transfer of information to a computer-printed mark sheet (MS1) at a later stage (i.e. in candidate index number order, where this is known).
3. Enter each candidate's marks on this form as follows:
 - a) In the question columns, enter the marks awarded.
 - b) In the columns headed 'Total Mark', enter the total mark awarded.
4. Ensure that the addition of marks is independently checked.
5. Both the teacher completing this form and the internal moderator should check the form and complete the bottom portion.

B. PROCEDURES FOR EXTERNAL MODERATION

1. University of Cambridge International Examinations (CIE) sends a computer-printed mark sheet (MS1) to each centre showing the name and index number of each candidate. Transfer the total internally moderated mark for each candidate from this WORKING MARK SHEET to the computer-printed mark sheet (MS1).
2. Despatch the top copy of the computer-printed mark sheet (MS1) to CIE. The deadlines for receipt of this completed document are 15 June for the June examination and 16 November for the November examination.
3. Send samples of the candidates' work covering the full ability range, together with this form and the second copy of MS1, by 15 June for the June examination and 16 November for the November examination.
4. If there are 10 or fewer candidates entering the Achievement Test, send all the scripts for every candidate.
5. If there are more than 10 candidates, send the scripts that contributed to the final mark for the number of candidates as follows. The marks of the candidates' work selected should cover the whole mark range with marks spaced as evenly as possible from the top mark to the lowest mark.

number of candidates entered	number of candidates whose work is required
11-50	10
51-100	15
above 100	20

6. If different teachers have prepared classes, select the samples from the classes of different teachers.
7. CIE reserves the right to ask for further samples of scripts.





UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
Cambridge International Primary Achievement Test

MATHEMATICS

0842/01

Paper 1

May/June 2009

MARK SCHEME

Maximum Mark : 39

IMPORTANT NOTICE

Mark Schemes have been issued on the basis of **one** copy per Assistant examiner and two copies per Team Leader.



This document consists of **11** printed pages and **1** blank page.



Mathematics mark schemes – Achievement Test

Guidelines for marking test papers

These mark schemes are designed to provide you with all the information necessary to mark the Primary Mathematics Achievement Tests. As far as possible, the mark schemes give you full guidance regarding acceptable and unacceptable alternative answers and, where appropriate, include examples of student work to illustrate the marking points. However, it is not always possible to predict all the alternative answers that may be produced by students and there could be places where the marker will have to use their professional judgement. In these cases it is essential that such judgement be applied consistently.

The guidelines below should be followed throughout (**unless the mark scheme states otherwise**):

- A correct answer should always be awarded full marks even if the working shown is wrong.
- Where more than one mark is available for a question the mark scheme explains where each mark should be awarded. In some cases marks are available for demonstration of the correct method even if the final answer is incorrect. The method marks can be awarded if the correct method is used but a mistake has been made in the calculation, resulting in a wrong answer. Method marks can also be awarded if the calculation is set up and performed correctly but incorrect values have been used, e.g. due to misreading the question or a mistake earlier in a series of calculations.
- If a question uses the answer to a previous question or part question that the student answered incorrectly, all available marks can be awarded for the latter question if appropriate calculations are performed correctly using the value carried forward. Places where such consideration should be made are indicated in the mark schemes. In these cases, it is not possible to provide all the alternative acceptable answers and the marker must follow the student's working to determine whether credit should be given or not.
- Half marks should not be awarded and at no point should an answer be awarded more than the maximum number of marks available, regardless of the quality of the answer.
- If the student has given more than one answer, the marks can be awarded if all the answers given are correct. However, if correct and incorrect answers are given together, marks should not be awarded (marks for correct working out can still be gained).
- If the answer line is blank but the correct answer is given elsewhere, e.g. an annotation on a graph or at the end of the working out, the marks can be awarded provided it is clear that the student has understood the requirements of the question.
- If the response on the answer line is incorrect but the correct answer is shown elsewhere, full marks can still be awarded if the student has made the error when copying the answer onto the answer line. If the incorrect final answer is the result of redundant additional working after the correct answer had been reached, the marks can be awarded provided the extra work does not contradict that already done.
- Each question and part question should be considered independently and marks for one question should not be disallowed if they are contradicted by working or answers in another question or part question.
- Any legible crossed-out work that has not been replaced can be marked; but, if work has been replaced, the crossed-out part should be ignored.

- If the student's response is numerically or algebraically equivalent to the answer in the mark scheme, the mark should be given unless a particular form of answer was specified by the question.
- Diagrams, symbols or words are acceptable for explanations or responses.
- Where students are required to indicate the correct answer in a specific way, e.g. by underlining, marks should be awarded for any unambiguous indication, e.g. circling or ticking.
- Any method of setting out working should be accepted.
- Standard rules for acceptable formats of answers involving units, money, duration and time are given overleaf.

Each question on the test paper has a box beside it for the teacher to record the mark obtained. It is advisable to use these boxes so that students, and others looking at the test papers, can clearly see where the marks have been awarded.

It should also be noted that marking in red ink and using the mark boxes is an essential requirement for the Achievement tests.

General rules for alternative answers

In most places on the mark schemes acceptable and unacceptable alternative answers are given in detail, however some general rules are given overleaf and are not necessarily repeated in full for each question that they apply.

Number and Place value

The table shows various general rules in terms of acceptable decimal answers.

Accept
Accept omission of leading zero if answer is clearly shown, e.g. .675
Accept trailing zeros, unless the question has asked for a specific number of decimal places, e.g. 0.7000
Always accept appropriate trailing zeros, e.g. 3.00m; 5.000kg
Accept a comma as a decimal point if that is that convention that you have taught the students, e.g. 0,638

Units

For questions involving quantities, e.g. length, mass, time or money, correct units must be given in the answer. The table shows acceptable and unacceptable versions of the answer 1.85m.

	Correct answer	Also accept	Do not accept
Units are not given on answer line and question does not specify unit for the answer.	1.85m	Correct conversions provided that the unit is stated, e.g. 1m 85cm 185cm 1850mm 0.00185km	1.85 185m
If the unit is given on the answer line, e.g. .....m	.....1.85..... m	Correct conversions, provided the unit is stated unambiguously, e.g. .....185cm..... m	.....185.....m.....1850.... m etc.
If the question states the unit that the answer should be given in a specified unit, e.g. “Give your answer in metres”	1.85m	1.85 1m 85cm	185; 1850 Any conversions to other units, e.g. 185cm

Note: if the answer line is left blank but the correct answer is given elsewhere on the page, it can be marked correct if the units match those on the answer line or are unambiguously stated.

Money

For questions involving money, it is essential that appropriate units are given in the answer.

The table shows acceptable and unacceptable versions.

	Accept	Do not accept
If the amount is in dollars and cents, the answer should be given to two decimal places.	\$0.30 \$9 or \$9.00	
If units are not given on answer line	Any unambiguous indication of the correct amount, e.g. 30 cents; 30 c \$0.30; \$0.30c; \$0.30cents \$0-30; \$0=30; \$0:30	30 or 0.30 without a unit Incorrect or ambiguous answers, e.g. \$0.3; \$30; \$30cents; 0.30cents
If \$ is shown on the answer line	\$..... 0.30 \$..... 0.30 cents Accept all unambiguous indications, as shown above	\$..... 30 \$..... 30 cents (this cannot be accepted because it is ambiguous, but if the dollar sign is deleted it becomes acceptable)
If cents is shown on the answer line	.....30.....cents \$0.30.....cents	.....0.30.....cents \$30.....cents

Duration

Accept any unambiguous method of showing duration and all reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs).

Accept	Do not accept
Any unambiguous indication using any reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs), e.g. 2 hours 30 minutes; 2h 30m; 02h 30m 5 min 24 sec; 00h 05m 24s	Incorrect or ambiguous formats, e.g. 2.30; 2.3; 2.30 hours; 2.30 min; 2h 3; 2.3h
Any correct conversion with appropriate units, e.g. 2.5 hours; 150 mins 324 seconds	2.5; 150 324
Also accept unambiguous digital stopwatch format, e.g. 02:30:00 00:05:24; 05:24s	Do not accept ambiguous indications, e.g. 02:30 5.24

Time

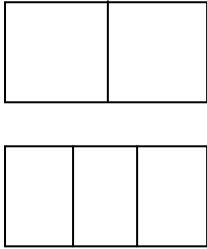
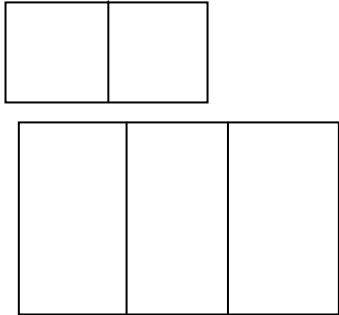
There are many ways to write times, in both numbers and words, and marks should be awarded for any unambiguous method. Accept time written in numbers or words unless there is a specific instruction in the question. Some examples are given in the table.

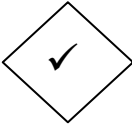

Accept	Do not accept
<p>Any unambiguous indication of correct answer in numbers, words or a combination of the two, e.g. 07:30, 19:00</p> <p>0730; 07 30; 07.30; 07,30; 07-30; 7.30; 730 a.m.; 7.30am; 7.30 in the morning</p> <p>Half past seven (o'clock) in the morning Thirty minutes past seven am Also accept: O-seven-thirty</p> <p>1900; 19 00; 19_00 etc.</p> <p>Nineteen hundred (hours) Seven o'clock in the afternoon/evening</p> <p>Accept correct conversion to 12-hour clock, e.g. 16:42 4:42 p.m.</p> <p>Sixteen forty two Four-forty-two in the afternoon/evening Four forty two p.m. Forty two (minutes) past four p.m. Eighteen (minutes) to five in the evening</p> <p>Also accept a combination of numbers and words, e.g. 18 minutes to 5 p.m. 42 minutes past 4 in the afternoon</p>	<p>Incorrect or ambiguous formats, e.g.</p> <p>07.3; 073; 07 3; 730; 73; 7.3; 7.3am; 7.30p.m</p> <p>19; 190; 19 000; 19.00am; 7.00am</p> <p>4.42am; 0442; 4.42</p> <p>Forty two (minutes) past sixteen Eighteen (minutes) to seventeen</p>

Question	Mark	Answer	Additional Information
1 2Nn5	1	5, 10	Both correct for one mark.

Question	Mark	Answer	Additional Information
2 2P3	1	True	1 mark for True
	1	1 mark for any acceptable reason. e.g. because odd numbers end in an odd number. because even numbers end in an even number. because no odd numbers can be divided by 2, and 8 can be divided by 2 because all even numbers can be divided by 2. Eight can be divided by 2. 0 marks for False with any explanation	Any indication of this Any indication of this Do not accept because 8 is an even number / is not an odd number

Question	Mark	Answer	Additional Information
3 3Nc3	1	Either $11 - 3 = 8$ Or $11 = 3 + 8$	

Question	Mark	Answer	Additional Information
4 3P2	2	<p>Award two marks for any suitable diagrams.</p> <p>e.g.</p>  <p>Any two congruent shapes correctly divided are acceptable.</p>	<p>Allow 1 mark if the two diagrams drawn are split into halves and thirds respectively but are not congruent.</p> <p>e.g.</p> 

Question	Mark	Answer	Additional Information
5 3Sp3	1	 	Both correct shapes must be ticked.

Question	Mark	Answer	Additional Information
6a 3Sp2	1	Shape C	Also accept trapezium
b 4Sp4	1	B	Also accept circle
c 4Sp4	1	South West	Also accept SW

Question	Mark	Answer	Additional Information
7 3Sm9	1	Ten twenty-five; twenty-five past ten; twenty-five minutes past ten. Accept any equivalent statement in words.	Do not accept if any part of the answer is in numerals.

Question	Mark	Answer	Additional Information
8a 4Nn1	1	10523	
b 4Nn1	1	10 accept 'One ten' or 'one 10' or 'ten'	Accept any reasonable explanation

Question	Mark	Answer	Additional Information
9a 4Nn7	1	730	
b 4Nn7	1	500	

Question	Mark	Answer	Additional Information
10 4P3	1	Add four / +4 or equivalent answer which explains an increase of 4 each time.	Also accept expression for n^{th} term: $4n - 2$ or equivalent.

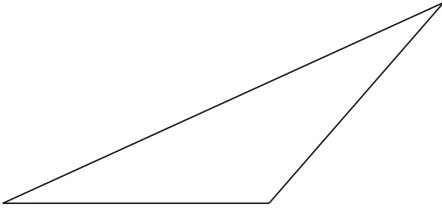
Question	Mark	Answer	Additional Information
11 4D2	1	4, 5, 6	All three correct for 1 mark

Question	Mark	Answer	Additional Information
12a 4D4	1	America	
b 6D4	1	Asia	
c 6D4	1	6	Accept $9 - 3 = 6$
d 6D5	1	5	
e 6D5	1	6	Accept $30 \div 5 = 6$

Question	Mark	Answer	Additional Information	
13	4Ss4	1	Isosceles	Any indication.

Question	Mark	Answer	Additional Information	
14a	5Nn2	1	978 600	
b	5Nn2	1	836.2	

Question	Mark	Answer	Additional Information	
15	5Nc1	1	$23 + 77 = 100$	
		1	$0.4 + 0.6 = 100$	

Question	Mark	Answer	Additional Information	
16a	5Ss1	1	Accept any suitable triangle, e.g.	2 sides MUST be equal. 1 angle must be between 90-180°
				
b	5Ss1	1	Accept any correct statement relating to a rectangle. e.g. Two pairs of equal sides Two lines of symmetry Diagonals bisect each other	Also accept any equivalent statement.

Question	Mark	Answer	Additional Information	
17a	5Sm2	1	4250 (g)	
b	5Sm2	1	750 (ml)	

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UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
Cambridge International Primary Achievement Test

MATHEMATICS

0842/02

Paper 2

May/June 2009

MARK SCHEME

Maximum Mark : 39

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Accept omission of leading zero if answer is clearly shown, e.g. .675
Accept trailing zeros, unless the question has asked for a specific number of decimal places, e.g. 0.7000
Always accept appropriate trailing zeros, e.g. 3.00m; 5.000kg
Accept a comma as a decimal point if that is that convention that you have taught the students, e.g. 0,638

Units

For questions involving quantities, e.g. length, mass, time or money, correct units must be given in the answer. The table shows acceptable and unacceptable versions of the answer 1.85m.

	Correct answer	Also accept	Do not accept
Units are not given on answer line and question does not specify unit for the answer.	1.85m	Correct conversions provided that the unit is stated, e.g. 1m 85cm 185cm 1850mm 0.00185km	1.85 185m
If the unit is given on the answer line, e.g. .....m	.....1.85..... m	Correct conversions, provided the unit is stated unambiguously, e.g. .....185cm..... m	.....185.....m.....1850..... m etc.
If the question states the unit that the answer should be given in a specified unit, e.g. “Give your answer in metres”	1.85m	1.85 1m 85cm	185; 1850 Any conversions to other units, e.g. 185cm

Note: if the answer line is left blank but the correct answer is given elsewhere on the page, it can be marked correct if the units match those on the answer line or are unambiguously stated.

Money

For questions involving money, it is essential that appropriate units are given in the answer.

The table shows acceptable and unacceptable versions.

	Accept	Do not accept
If the amount is in dollars and cents, the answer should be given to two decimal places.	\$0.30 \$9 or \$9.00	
If units are not given on answer line	Any unambiguous indication of the correct amount, e.g. 30 cents; 30 c \$0.30; \$0.30c; \$0.30cents \$0-30; \$0=30; \$0:30	30 or 0.30 without a unit Incorrect or ambiguous answers, e.g. \$0.3; \$30; \$30cents; 0.30cents
If \$ is shown on the answer line	\$..... 0.30 \$..... 0.30 cents Accept all unambiguous indications, as shown above	\$..... 30 \$..... 30 cents (this cannot be accepted because it is ambiguous, but if the dollar sign is deleted it becomes acceptable)
If cents is shown on the answer line	.....30.....cents \$0.30.....cents	.....0.30.....cents \$30.....cents

Duration

Accept any unambiguous method of showing duration and all reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs).

Accept	Do not accept
Any unambiguous indication using any reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs), e.g. 2 hours 30 minutes; 2h 30m; 02h 30m 5 min 24 sec; 00h 05m 24s	Incorrect or ambiguous formats, e.g. 2.30; 2.3; 2.30 hours; 2.30 min; 2h 3; 2.3h
Any correct conversion with appropriate units, e.g. 2.5 hours; 150 mins 324 seconds	2.5; 150 324
Also accept unambiguous digital stopwatch format, e.g. 02:30:00 00:05:24; 05:24s	Do not accept ambiguous indications, e.g. 02:30 5.24

Time

There are many ways to write times, in both numbers and words, and marks should be awarded for any unambiguous method. Accept time written in numbers or words unless there is a specific instruction in the question. Some examples are given in the table.

Accept	Do not accept
<p>Any unambiguous indication of correct answer in numbers, words or a combination of the two, e.g. 07:30, 19:00</p> <p>0730; 07 30; 07.30; 07,30; 07-30; 7.30; 730 a.m.; 7.30am; 7.30 in the morning</p> <p>Half past seven (o'clock) in the morning Thirty minutes past seven am Also accept: O-seven-thirty</p> <p>1900; 19 00; 19_00 etc.</p> <p>Nineteen hundred (hours) Seven o'clock in the afternoon/evening</p> <p>Accept correct conversion to 12-hour clock, e.g. 16:42 4:42 p.m.</p> <p>Sixteen forty two Four-forty-two in the afternoon/evening Four forty two p.m. Forty two (minutes) past four p.m. Eighteen (minutes) to five in the evening</p> <p>Also accept a combination of numbers and words, e.g. 18 minutes to 5 p.m. 42 minutes past 4 in the afternoon</p>	<p>Incorrect or ambiguous formats, e.g.</p> <p>07.3; 073; 07 3; 730; 73; 7.3; 7.3am; 7.30p.m</p> <p>19; 190; 19 000; 19.00am; 7.00am</p> <p>4.42am; 0442; 4.42</p> <p>Forty two (minutes) past sixteen Eighteen (minutes) to seventeen</p>

Question	Mark	Answer	
1	2Nn7	1	91, 79, 47, 43

Question	Mark	Answer	
2	3Nn12	1	Any 2 chickens circled

Question	Mark	Answer	
3a	3Nc4	1	65
b	3Nc14	1	900

Question	Mark	Answer	
4a	3P8	2	2 marks for correct answer (\$) 34.73 1 mark for evidence of: $35.27 + 30$ and $100 - 65.27$ (or pupil's own answer) = wrong answer N.B. $\$5 \times 6$ is insufficient working for 1 mark
b	4P6	2	No – with correct calculation e.g. $22.43 \times 3 = 67.29$ or $65 \div 22.43 = 2.8979 < 3$ Also accept estimated calculations such as: $22 \times 3 = 66 > 65$ Allow 1 mark for No unsupported by correct calculation

Question	Mark	Answer	
5a	4Nn1	1	43 075
b	4Nn1	1	six thousand, four hundred and fifty-nine Accept any answer that is recognisable as the correct answer (misspelling is allowed)

Question	Mark	Answer	
6	4Nn10	1	765 and 567 should be circled

Question	Mark	Answer	
7	4Nc15	1	256 + 58 = 314

Question	Mark	Answer	
8	4P5	1	6 (pencils) Do not accept $6\frac{2}{3}$ or 6 remainder 10

Question	Mark	Answer	
9	4P4	1	Half of 60 is 30, half of 8 is 4, so 30 add 4 is 34 or equivalent correct explanation Sentences containing figures are acceptable.

Question	Mark	Answer	
10a	4D5	1	5
b	4D5	1	12

Question	Mark	Answer	
11a	3Ss3	1	2 (lines of symmetry)
b	4Ss1	1	accept rectangle or rhombus Accept a correct drawing showing a shape with two lines of symmetry

Question	Mark	Answer	
12a	4Sp8	1	90°
b	4Sp7	1	4

Question		Mark	Answer	
13a	5Sp1	1	(3, 1)	
b	5Sp1	1	Cross in the correct place	(7,6)

Question		Mark	Answer	
14a	6Nn4	1	17, 19	They must be written in the correct order to get the mark.
b	6Nn8	1	2	
c	6Nn8	1	no	

Question		Mark	Answer	
15	6Nc3	1	23178.8	

Question		Mark	Answer			
16	6P2	3	4	5	9	All four correct 3 marks
			11	6	1	Three correct 2 marks
			3	7	8	Two correct 1 mark
						One or none correct 0 mark

Question	Mark	Answer	
17a 6D3	1	yes	
b 6D3	1	accept either : mean = 18 secs or : mode / median = 18.2 secs	
c 6D5	1	certain likely <u>unlikely</u> impossible	

Question	Mark	Answer	
18 6Sm6	2	5.85 m² 2.5 x 1.8 = 4.5 m ² 1.5 x 1.8 ÷ 2 = 1.35 m ² 4.5 + 1.35 = 5.85 m ²	Units must be given. Allow 1 mark if correct working out shown but incorrect final answer.

Question	Mark	Answer	
19 6Nc9	1	$\frac{1}{3}$	

Question	Mark	Answer	
20 6Nn13	1	15 (red flowers)	

Question	Mark	Answer	
21 6Sm2	1	2395 (kg)	

Question	Mark	Answer	
22a 6Sm6	1	2 cm, 1 cm and 6 cm (working from the top down)	
b 6Sm6	1	26 cm	

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UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
Cambridge International Primary Achievement Test

MATHEMATICS

0842/01

Paper 1

October/November 2009

MARK SCHEME

Maximum Mark : 39



IMPORTANT NOTICE

Mark Schemes have been issued on the basis of **one** copy per Assistant examiner and **two** copies per Team Leader.

This document consists of **13** printed pages and **3** blank pages.



Mathematics mark schemes – Achievement Test

Guidelines for marking test papers

These mark schemes are designed to provide you with all the information necessary to mark the Primary Mathematics Achievement Tests. As far as possible, the mark schemes give you full guidance regarding acceptable and unacceptable alternative answers and, where appropriate, include examples of student work to illustrate the marking points. However, it is not always possible to predict all the alternative answers that may be produced by students and there could be places where the marker will have to use their professional judgement. In these cases it is essential that such judgement be applied consistently.

The guidelines below should be followed throughout (**unless the mark scheme states otherwise**):

- A correct answer should always be awarded full marks even if the working shown is wrong.
- Where more than one mark is available for a question the mark scheme explains where each mark should be awarded. In some cases marks are available for demonstration of the correct method even if the final answer is incorrect. The method marks can be awarded if the correct method is used but a mistake has been made in the calculation, resulting in a wrong answer. Method marks can also be awarded if the calculation is set up and performed correctly but incorrect values have been used, e.g. due to misreading the question or a mistake earlier in a series of calculations.
- If a question uses the answer to a previous question or part question that the student answered incorrectly, all available marks can be awarded for the latter question if appropriate calculations are performed correctly using the value carried forward. Places where such consideration should be made are indicated in the mark schemes. In these cases, it is not possible to provide all the alternative acceptable answers and the marker must follow the student's working to determine whether credit should be given or not.
- Half marks should not be awarded and at no point should an answer be awarded more than the maximum number of marks available, regardless of the quality of the answer.
- If the student has given more than one answer, the marks can be awarded if all the answers given are correct. However, if correct and incorrect answers are given together, marks should not be awarded (marks for correct working out can still be gained).
- If the answer line is blank but the correct answer is given elsewhere, e.g. an annotation on a graph or at the end of the working out, the marks can be awarded provided it is clear that the student has understood the requirements of the question.
- If the response on the answer line is incorrect but the correct answer is shown elsewhere, full marks can still be awarded if the student has made the error when copying the answer onto the answer line. If the incorrect final answer is the result of redundant additional working after the correct answer had been reached, the marks can be awarded provided the extra work does not contradict that already done.

- Each question and part question should be considered independently and marks for one question should not be disallowed if they are contradicted by working or answers in another question or part question.
- Any legible crossed-out work that has not been replaced can be marked; but, if work has been replaced, the crossed-out part should be ignored.
- If the student's response is numerically or algebraically equivalent to the answer in the mark scheme, the mark should be given unless a particular form of answer was specified by the question.
- Diagrams, symbols or words are acceptable for explanations or responses.
- Where students are required to indicate the correct answer in a specific way, e.g. by underlining, marks should be awarded for any unambiguous indication, e.g. circling or ticking.
- Any method of setting out working should be accepted.
- Standard rules for acceptable formats of answers involving units, money, duration and time are given overleaf.

Each question on the test paper has a box beside it for the teacher to record the mark obtained. It is advisable to use these boxes so that students, and others looking at the test papers, can clearly see where the marks have been awarded.

It should also be noted that marking in red ink and using the mark boxes is an essential requirement for the Achievement tests.

A working marksheet, together with instructions for its completion, is included in this mark scheme. A completed copy should be despatched with the moderation sample.

General rules for alternative answers

In most places on the mark schemes acceptable and unacceptable alternative answers are given in detail, however some general rules are given overleaf and are not necessarily repeated in full for each question that they apply.

Number and Place value

The table shows various general rules in terms of acceptable decimal answers.

Accept
Accept omission of leading zero if answer is clearly shown, e.g. .675
Accept trailing zeros, unless the question has asked for a specific number of decimal places, e.g. 0.7000
Always accept appropriate trailing zeros, e.g. 3.00m; 5.000kg
Accept a comma as a decimal point if that is that convention that you have taught the student, e.g. 0,638

Units

For questions involving quantities, e.g. length, mass, time or money, correct units must be given in the answer. The table shows acceptable and unacceptable versions of the answer 1.85m.

	Correct answer	Also accept	Do not accept
Units are not given on answer line and question does not specify unit for the answer.	1.85m	Correct conversions provided that the unit is stated, e.g. 1m 85cm 185cm 1850mm 0.00185km	1.85 185m
If the unit is given on the answer line, e.g. .....m	.....1.85..... m	Correct conversions, provided the unit is stated unambiguously, e.g. .....185cm..... m	.....185.....m.....1850.... m etc.
If the question states the unit that the answer should be given in a specified unit, e.g. "Give your answer in metres"	1.85m	1.85 1m 85cm	185; 1850 Any conversions to other units, e.g. 185cm

Note: if the answer line is left blank but the correct answer is given elsewhere on the page, it can be marked correct if the units match those on the answer line or are unambiguously stated.

Money

For questions involving money, it is essential that appropriate units are given in the answer.

The table shows acceptable and unacceptable versions.

	Accept	Do not accept
If the amount is in dollars and cents, the answer should be given to two decimal places.	\$0.30 \$9 or \$9.00	
If units are not given on answer line	Any unambiguous indication of the correct amount, e.g. 30 cents; 30 c \$0.30; \$0.30c; \$0.30cents \$0-30; \$0=30; \$0:30	30 or 0.30 without a unit Incorrect or ambiguous answers, e.g. \$0.3; \$30; \$30cents; 0.30cents
If \$ is shown on the answer line	\$..... 0.30 \$..... 0.30 cents Accept all unambiguous indications, as shown above	\$..... 30 \$..... 30 cents (this cannot be accepted because it is ambiguous, but if the dollar sign is deleted it becomes acceptable)
If cents is shown on the answer line	.....30.....cents \$0.30.....cents	.....0.30.....cents \$30.....cents

Duration

Accept any unambiguous method of showing duration and all reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs).

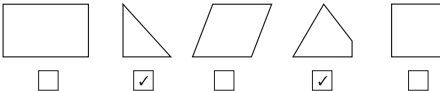
Accept	Do not accept
Any unambiguous indication using any reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs), e.g. 2 hours 30 minutes; 2h 30m; 02h 30m 5 min 24 sec; 00h 05m 24s	Incorrect or ambiguous formats, e.g. 2.30; 2.3; 2.30 hours; 2.30 min; 2h 3; 2.3h
Any correct conversion with appropriate units, e.g. 2.5 hours; 150 mins 324 seconds	2.5; 150 304
Also accept unambiguous digital stopwatch format, e.g. 02:30:00 00:05:24; 05:24s	Do not accept ambiguous indications, e.g. 02:30 5.24

Time

There are many ways to write times, in both numbers and words, and marks should be awarded for any unambiguous method. Accept time written in numbers or words unless there is a specific instruction in the question. Some examples are given in the table.

Accept	Do not accept
<p>Any unambiguous indication of correct answer in numbers, words or a combination of the two, e.g. 07:30, 19:00</p> <p>0730; 07 30; 07.30; 07,30; 07-30; 7.30; 730 a.m.; 7.30am; 7.30 in the morning</p> <p>Half past seven (o'clock) in the morning Thirty minutes past seven am Also accept: O-seven-thirty</p> <p>1900; 19 00; 19_00 etc.</p> <p>Nineteen hundred (hours) Seven o'clock in the afternoon/evening</p> <p>Accept correct conversion to 12-hour clock, e.g. 16:42 4:42 p.m.</p> <p>Sixteen forty two Four-forty-two in the afternoon/evening Four forty two p.m. Forty two (minutes) past four p.m. Eighteen (minutes) to five in the evening</p> <p>Also accept a combination of numbers and words, e.g. 18 minutes to 5 p.m. 42 minutes past 4 in the afternoon</p>	<p>Incorrect or ambiguous formats, e.g.</p> <p>07.3; 073; 07 3; 730; 73; 7.3; 7.3am; 7.30p.m</p> <p>19; 190; 19 000; 19.00am; 7.00am</p> <p>4.42am; 0442; 4.42</p> <p>Forty two (minutes) past sixteen Eighteen (minutes) to seventeen</p>

Question	Mark	Answer	
1	3Nn1	1	2605

Question	Mark	Answer		
2	3Ss1	1		Both shapes must be ticked to earn the mark.

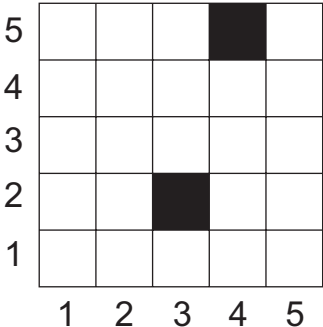
Question	Mark	Answer		
3	3Nc4	1	45 35	Both answers must be correct to earn the mark.

Question	Mark	Answer		
4a	3P7	1	11 (cents)	
b	3P7	1	9 (cents)	If part (a) is incorrect, allow 20 – answer from part (a) = correct answer.

Question	Mark	Answer		
5	3Sm9	1	Accept any of the following: 5:50 05:50 5:50am 05:50am	Do not accept: 17:50 5:50pm 05:50pm

Question	Mark	Answer		
6a	4D3	1	80	
b	4D3	1	Saturday	
c	4D3	1	\$400	

Question	Mark	Answer	
7 3Nn6	1	Accept any of the following: 7 tens 70 tens 7×10 seventy	Do not accept: 10 or 'ten'

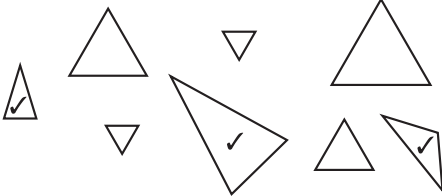
Question	Mark	Answer	
8a 3Sp1	1	(3,2)	
b 3Sp1	1		1 mark for square (4,5) shaded or otherwise indicated

Question	Mark	Answer	
9 3Nc7	1	Accept either $30 \div 5 = 6$ or $30 \div 6 = 5$	

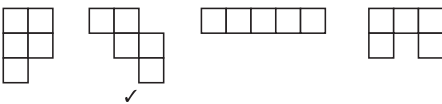
Question	Mark	Answer	
10 3Nm11	1	400	

Question	Mark	Answer	
11a 4Sp10	1	D, B, A, C	All in correct order for 1 mark
b 4Sp6	1	degrees	1 mark. Also accept °

Question	Mark	Answer											
12	4D5	2	<table border="1"> <thead> <tr> <th></th> <th>prime</th> <th>not prime</th> </tr> </thead> <tbody> <tr> <th>odd</th> <td>3, 5, 7</td> <td>1, 9</td> </tr> <tr> <th>not odd</th> <td>2</td> <td>4, 6, 8</td> </tr> </tbody> </table>		prime	not prime	odd	3, 5, 7	1, 9	not odd	2	4, 6, 8	<p>All 3 numbers correct earns 2 marks</p> <p>Any 2 numbers correct earns 1 mark.</p> <p>1 or 0 numbers correct earns 0 marks.</p>
	prime	not prime											
odd	3, 5, 7	1, 9											
not odd	2	4, 6, 8											


Question	Mark	Answer		
13	4Ss2	2		<p>All 3 triangles ticked earns 2 marks.</p> <p>Any 2 triangles ticked earns 1 mark</p> <p>1 or 0 triangle ticked earns 0 marks.</p> <p>Take one mark off any score for each incorrect triangle selected (minimum 0).</p>

Question	Mark	Answer		
14	4Nn15	2	\$12	<p>If incorrect, award 1 mark for evidence of either 1 book costs \$2</p> <p>or 12 books cost \$24</p> <p>or 2 books cost \$4.</p>

Question	Mark	Answer		
15	5Ss2	1		Accept any indication.

Question	Mark	Answer		
16	5Nn9	1	38 (81) 26 76 (45) (63)	All correct for 1 mark. Accept any indication

Question	Mark	Answer	
17 6Sm2	1	10 (millimetres) 1000 (millilitres)	Both sentences must be correct to earn the mark.

Question	Mark	Answer	
18a 5P2	1		
b 5P2	1	21	
c 5P2	1	Accept equivalent answers to "double the pattern number plus one" $2p + 1$	

Question	Mark	Answer	
19 6Nn20	1	(\$) 125	1 mark

Question	Mark	Answer	
20 6Nc8	2	26 312	If final answer incorrect award 1 mark for evidence of a complete method with no more than one computational error.

Question	Mark	Answer	
21 5Ss5	1	(triangle) C	

Question	Mark	Answer	
22 6Nn19	1	60%	

Question	Mark	Answer	
23 6P6	2	200 (matches)	If answer is incorrect award 1 mark for evidence of a complete correct method. For example, $480 \div 12 \times 5$ or if answer is incorrect award 1 mark for 40.

Question	Mark	Answer																	
24 6P2	2	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">×</td> <td style="border: none;"></td> <td style="text-align: center;">5</td> <td style="border: none;"></td> </tr> <tr> <td colspan="4" style="border-top: 1px solid black;"></td> </tr> <tr> <td style="border: none;"></td> <td style="border: none;"></td> <td style="border: none;"></td> <td style="text-align: center;">63</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="border: none;"></td> <td style="text-align: center;">15</td> <td style="border: none;"></td> </tr> </table>	×		5									63	3		15		2 marks for all four correct 1 mark for two or three correct
×		5																	
			63																
3		15																	

Question	Mark	Answer							
25 5Nc16	2	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">Sum</td> <td style="text-align: center;">Difference</td> </tr> <tr> <td style="text-align: center;">625</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">265</td> </tr> </table>	Sum	Difference	625			265	
Sum	Difference								
625									
	265								



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A. INSTRUCTIONS FOR COMPLETING WORKING MARK SHEET

1. Complete the information at the head of the form.
2. List the candidates in an order which will allow ease of transfer of information to a computer-printed mark sheet (MS1) at a later stage (i.e. in candidate index number order, where this is known).
3. Enter each candidate's marks on this form as follows:
 - a) In the question columns, enter the marks awarded.
 - b) In the columns headed 'Total Mark', enter the total mark awarded.
4. Ensure that the addition of marks is independently checked.
5. Both the teacher completing this form and the internal moderator should check the form and complete the bottom portion.

B. PROCEDURES FOR EXTERNAL MODERATION

1. University of Cambridge International Examinations (CIE) sends a computer-printed mark sheet (MS1) to each centre showing the name and index number of each candidate. Transfer the total internally moderated mark for each candidate from this WORKING MARK SHEET to the computer-printed mark sheet (MS1).
2. Despatch the top copy of the computer-printed mark sheet (MS1) to CIE. The deadlines for receipt of this completed document are 15 June for the June examination and 16 November for the November examination.
3. Send samples of the candidates' work covering the full ability range, together with this form and the second copy of MS1, by 15 June for the June examination and 16 November for the November examination.
4. If there are 10 or fewer candidates entering the Achievement Test, send all the scripts for every candidate.
5. If there are more than 10 candidates, send the scripts that contributed to the final mark for the number of candidates as follows. The marks of the candidates' work selected should cover the whole mark range with marks spaced as evenly as possible from the top mark to the lowest mark.

number of candidates entered	number of candidates whose work is required
11-50	10
51-100	15
above 100	20

6. If different teachers have prepared classes, select the samples from the classes of different teachers.
7. CIE reserves the right to ask for further samples of scripts.





UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
Cambridge International Primary Achievement Test

MATHEMATICS

0842/02

Paper 2

October/November 2009

MARK SCHEME

Maximum Mark : 39



IMPORTANT NOTICE

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This document consists of **14** printed pages and **2** blank pages.



Mathematics mark schemes – Achievement Test

Guidelines for marking test papers

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- If a question uses the answer to a previous question or part question that the student answered incorrectly, all available marks can be awarded for the latter question if appropriate calculations are performed correctly using the value carried forward. Places where such consideration should be made are indicated in the mark schemes. In these cases, it is not possible to provide all the alternative acceptable answers and the marker must follow the student's working to determine whether credit should be given or not.
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- If the student has given more than one answer, the marks can be awarded if all the answers given are correct. However, if correct and incorrect answers are given together, marks should not be awarded (marks for correct working out can still be gained).
- If the answer line is blank but the correct answer is given elsewhere, e.g. an annotation on a graph or at the end of the working out, the marks can be awarded provided it is clear that the student has understood the requirements of the question.
- If the response on the answer line is incorrect but the correct answer is shown elsewhere, full marks can still be awarded if the student has made the error when copying the answer onto the answer line. If the incorrect final answer is the result of redundant additional working after the correct answer had been reached, the marks can be awarded provided the extra work does not contradict that already done.

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- Diagrams, symbols or words are acceptable for explanations or responses.
- Where students are required to indicate the correct answer in a specific way, e.g. by underlining, marks should be awarded for any unambiguous indication, e.g. circling or ticking.
- Any method of setting out working should be accepted.
- Standard rules for acceptable formats of answers involving units, money, duration and time are given overleaf.

Each question on the test paper has a box beside it for the teacher to record the mark obtained. It is advisable to use these boxes so that students, and others looking at the test papers, can clearly see where the marks have been awarded.

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General rules for alternative answers

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Number and Place value

The table shows various general rules in terms of acceptable decimal answers.

Accept
Accept omission of leading zero if answer is clearly shown, e.g. .675
Accept trailing zeros, unless the question has asked for a specific number of decimal places, e.g. 0.7000
Always accept appropriate trailing zeros, e.g. 3.00m; 5.000kg
Accept a comma as a decimal point if that is that convention that you have taught the student, e.g. 0,638

Units

For questions involving quantities, e.g. length, mass, time or money, correct units must be given in the answer. The table shows acceptable and unacceptable versions of the answer 1.85m.

	Correct answer	Also accept	Do not accept
Units are not given on answer line and question does not specify unit for the answer.	1.85m	Correct conversions provided that the unit is stated, e.g. 1m 85cm 185cm 1850mm 0.00185km	1.85 185m
If the unit is given on the answer line, e.g. .....m	.....1.85..... m	Correct conversions, provided the unit is stated unambiguously, e.g. .....185cm..... m	.....185.....m.....1850..... m etc.
If the question states the unit that the answer should be given in a specified unit, e.g. "Give your answer in metres"	1.85m	1.85 1m 85cm	185; 1850 Any conversions to other units, e.g. 185cm

Note: if the answer line is left blank but the correct answer is given elsewhere on the page, it can be marked correct if the units match those on the answer line or are unambiguously stated.

Money

For questions involving money, it is essential that appropriate units are given in the answer.

The table shows acceptable and unacceptable versions.

	Accept	Do not accept
If the amount is in dollars and cents, the answer should be given to two decimal places.	\$0.30 \$9 or \$9.00	
If units are not given on answer line	Any unambiguous indication of the correct amount, e.g. 30 cents; 30 c \$0.30; \$0.30c; \$0.30cents \$0-30; \$0=30; \$0:30	30 or 0.30 without a unit Incorrect or ambiguous answers, e.g. \$0.3; \$30; \$30cents; 0.30cents
If \$ is shown on the answer line	\$..... 0.30 \$..... 0.30 cents Accept all unambiguous indications, as shown above	\$..... 30 \$..... 30 cents (this cannot be accepted because it is ambiguous, but if the dollar sign is deleted it becomes acceptable)
If cents is shown on the answer line	.....30.....cents \$0.30.....cents	.....0.30.....cents \$30.....cents

Duration

Accept any unambiguous method of showing duration and all reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs).

Accept	Do not accept
Any unambiguous indication using any reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs), e.g. 2 hours 30 minutes; 2h 30m; 02h 30m 5 min 24 sec; 00h 05m 24s	Incorrect or ambiguous formats, e.g. 2.30; 2.3; 2.30 hours; 2.30 min; 2h 3; 2.3h
Any correct conversion with appropriate units, e.g. 2.5 hours; 150 mins 324 seconds	2.5; 150 304
Also accept unambiguous digital stopwatch format, e.g. 02:30:00 00:05:24; 05:24s	Do not accept ambiguous indications, e.g. 02:30 5.24

Time

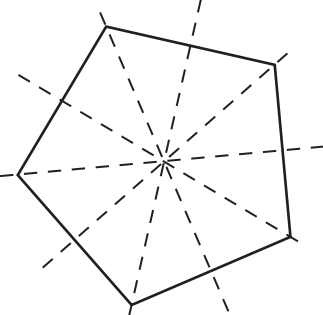
There are many ways to write times, in both numbers and words, and marks should be awarded for any unambiguous method. Accept time written in numbers or words unless there is a specific instruction in the question. Some examples are given in the table.

Accept	Do not accept
<p>Any unambiguous indication of correct answer in numbers, words or a combination of the two, e.g. 07:30, 19:00</p> <p>0730; 07 30; 07.30; 07,30; 07-30; 7.30; 730 a.m.; 7.30am; 7.30 in the morning</p> <p>Half past seven (o'clock) in the morning Thirty minutes past seven am Also accept: O-seven-thirty</p> <p>1900; 19 00; 19_00 etc.</p> <p>Nineteen hundred (hours) Seven o'clock in the afternoon/evening</p> <p>Accept correct conversion to 12-hour clock, e.g. 16:42 4:42 p.m.</p> <p>Sixteen forty two Four-forty-two in the afternoon/evening Four forty two p.m. Forty two (minutes) past four p.m. Eighteen (minutes) to five in the evening</p> <p>Also accept a combination of numbers and words, e.g. 18 minutes to 5 p.m. 42 minutes past 4 in the afternoon</p>	<p>Incorrect or ambiguous formats, e.g.</p> <p>07.3; 073; 07 3; 730; 73; 7.3; 7.3am; 7.30p.m</p> <p>19; 190; 19 000; 19.00am; 7.00am</p> <p>4.42am; 0442; 4.42</p> <p>Forty two (minutes) past sixteen Eighteen (minutes) to seventeen</p>

Question	Mark	Answer	
1	3Nn9	1	3 8 38 83

Question	Mark	Answer	
2	3Nn13	1	$\frac{3}{4}$ or equivalent Also accept 0.75

Question	Mark	Answer	
3	3Nn3	1	317

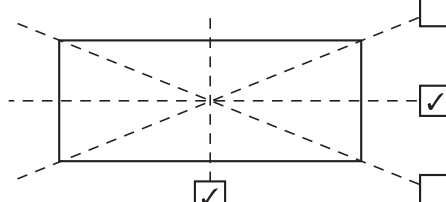
Question	Mark	Answer		
4a	3Ss1	1	Pentagon Also accept regular pentagon	
b	3Ss3	1	 <p>Any one clearly drawn accurate line.</p>	<p>Allow mark if no ruler is used, provided intention is clear.</p> <p>Allow mark if more than one correct line is drawn.</p>

Question	Mark	Answer	
5	4Nn8	1	-4 (°C)

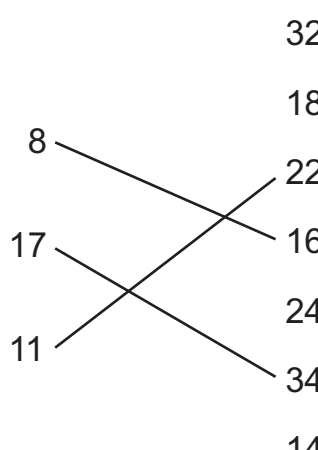
Question	Mark	Answer	
6	3P1	1	9

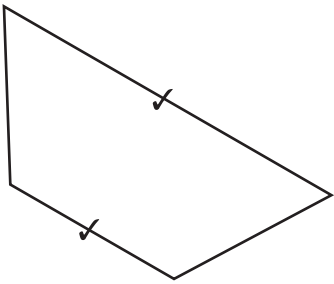
Question	Mark	Answer	
7	4Sp9	1	45 (°)

Question	Mark	Answer	
8	3Sm6	1	minutes Accept any indication of minutes for 1 mark. Also accept seconds.

Question	Mark	Answer	
9	3Ss3	1	 <p>Both lines must be ticked to earn the mark.</p>

Question	Mark	Answer	
10	3Nc8	1	3 (sweets)

Question	Mark	Answer	
11	3Nc12	1	 <p>All 3 lines must be correct to get the mark.</p>

Question	Mark	Answer	
12 5Sp2	1		Accept any indication of these two lines for 1 mark.

Question	Mark	Answer	
13a 4D5	1	14	
b 4D5	1	5	

Question	Mark	Answer	
14 3Sm8	1	Accept any of the following: 24 ^(th) April April 24 ^(th) 24/4 4/24	

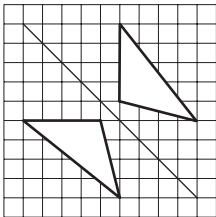
Question	Mark	Answer	
15a 5P2	1	Double (each number) or multiply by 2	Accept explanation in symbols for example x2
b 5P2	1	256	

Question	Mark	Answer	
16 5Nn1	1	Seven hundred and one thousand eight hundred and fifty.	Accept any reasonable spelling

Question	Mark	Answer	
17a 6D4	1	3	
b 6D4	1	5	
c 6D5	1	3.5	

Question	Mark	Answer	
18 5P6	4	14	<p>Award full marks for correct answer.</p> <p>If final answer incorrect, award marks as follows:</p> <p>Award 3 marks for evidence of 16, including $30 - 16$ seen.</p> <p>Award 2 marks for evidence of both 6 and 10</p> <p>Award 1 mark for evidence of either 6 or 10</p> <p>Award 1 mark for evidence of $6 + 10 =$ correct answer, where one of 6 or 10 is incorrect.</p>

Question	Mark	Answer	
19 5Nc3	1	1000 1500 2500	All three correct for 1 mark

Question	Mark	Answer	
20 6Ss4	1		

Question	Mark	Answer	
21	5Nc6	1	30

Question	Mark	Answer	
22	6Sp3	1	Angle should measure 74-76° inclusive. Accept correct angle drawn elsewhere.

Question	Mark	Answer	
23	6Nn9	2	$2 \times 2 \times 3 \times 5$ or $2^2 \times 3 \times 5$ Also accept 2,2,3,5 or $2^2, 3, 5$ Numbers may be multiplied or listed in any order. Award 1 mark for any 3 correct prime factors given.

Question	Mark	Answer	
24	6P4	1	$b = 4a + 3$ Although not normal convention accept $a4 + 3$ or $3 + a4$ Any correct use of brackets acceptable. Also accept: $3 + 4a$ $4 \times a + 3$ $3 + 4 \times a$ $a \times 4 + 3$ $3 + a \times 4$

Question	Mark	Answer	
25	6Nc10	2	$7 - 3 \times 12 = 48$ $21 + 4 - 7 \div 6 = 3$ Award 1 mark for each correct inverse calculation. Accept correct use of brackets.

Question		Mark	Answer	
26	6Sm6	3	Perimeter 74 (cm) Area 138 (cm ²)	For the area if final answer is incorrect award 1 mark for evidence of a correct complete method. For example $(9 \times 6) + (9 \times 6) + (10 \times 3)$ or $(6 \times 6) + (6 \times 6) + (22 \times 3)$

Question		Mark	Answer						
27	6P1	1	<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>2</td><td>1</td></tr></table> × <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>5</td><td>0</td><td>0</td></tr></table> = 10500	2	1	5	0	0	All digits correct for 1 mark.
2	1								
5	0	0							

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A. INSTRUCTIONS FOR COMPLETING WORKING MARK SHEET

1. Complete the information at the head of the form.
2. List the candidates in an order which will allow ease of transfer of information to a computer-printed mark sheet (MS1) at a later stage (i.e. in candidate index number order, where this is known).
3. Enter each candidate's marks on this form as follows:
 - a) In the question columns, enter the marks awarded.
 - b) In the columns headed 'Total Mark', enter the total mark awarded.
4. Ensure that the addition of marks is independently checked.
5. Both the teacher completing this form and the internal moderator should check the form and complete the bottom portion.

B. PROCEDURES FOR EXTERNAL MODERATION

1. University of Cambridge International Examinations (CIE) sends a computer-printed mark sheet (MS1) to each centre showing the name and index number of each candidate. Transfer the total internally moderated mark for each candidate from this **WORKING MARK SHEET** to the computer-printed mark sheet (MS1).
2. Despatch the top copy of the computer-printed mark sheet (MS1) to CIE. The deadlines for receipt of this completed document are 15 June for the June examination and 16 November for the November examination.
3. Send samples of the candidates' work covering the full ability range, together with this form and the second copy of MS1, by 15 June for the June examination and 16 November for the November examination.
4. If there are 10 or fewer candidates entering the Achievement Test, send all the scripts for every candidate.
5. If there are more than 10 candidates, send the scripts that contributed to the final mark for the number of candidates as follows. The marks of the candidates' work selected should cover the whole mark range with marks spaced as evenly as possible from the top mark to the lowest mark.

number of candidates entered	number of candidates whose work is required
11-50	10
51-100	15
above 100	20

6. If different teachers have prepared classes, select the samples from the classes of different teachers.
7. CIE reserves the right to ask for further samples of scripts.





UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
Cambridge International Primary Achievement Test

MATHEMATICS

0842/01

Paper 1

May/June 2008

MARK SCHEME

Maximum Mark : 39



IMPORTANT NOTICE

Mark Schemes have been issued on the basis of **one** copy per Assistant examiner and **two** copies per Team Leader.

This document consists of **12** printed pages.



Mathematics mark schemes – Achievement Test

Guidelines for marking test papers

These mark schemes are designed to provide you with all the information necessary to mark the Primary Mathematics Achievement Tests. As far as possible, the mark schemes give you full guidance regarding acceptable and unacceptable alternative answers and, where appropriate, include examples of student work to illustrate the marking points. However, it is not always possible to predict all the alternative answers that may be produced by students and there could be places where the marker will have to use their professional judgement. In these cases it is essential that such judgement be applied consistently.

The guidelines below should be followed throughout (**unless the mark scheme states otherwise**):

- A correct answer should always be awarded full marks even if the working shown is wrong.
- Where more than one mark is available for a question the mark scheme explains where each mark should be awarded. In some cases marks are available for demonstration of the correct method even if the final answer is incorrect. The method marks can be awarded if the correct method is used but a mistake has been made in the calculation, resulting in a wrong answer. Method marks can also be awarded if the calculation is set up and performed correctly but incorrect values have been used, e.g. due to misreading the question or a mistake earlier in a series of calculations.
- If a question uses the answer to a previous question or part question that the child answered incorrectly, all available marks can be awarded for the latter question if appropriate calculations are performed correctly using the value carried forward. Places where such consideration should be made are indicated in the mark schemes. In these cases, it is not possible to provide all the alternative acceptable answers and the marker must follow the child's working to determine whether credit should be given or not.
- Half marks should not be awarded and at no point should an answer be awarded more than the maximum number of marks available, regardless of the quality of the answer.
- If the child has given more than one answer, the marks can be awarded if all the answers given are correct. However, if correct and incorrect answers are given together, marks should not be awarded (marks for correct working out can still be gained).
- If the answer line is blank but the correct answer is given elsewhere, e.g. an annotation on a graph or at the end of the working out, the marks can be awarded provided it is clear that the child has understood the requirements of the question.
- If the response on the answer line is incorrect but the correct answer is shown elsewhere, full marks can still be awarded if the child has made the error when copying the answer onto the answer line. If the incorrect final answer is the result of redundant additional working after the correct answer had been reached, the marks can be awarded provided the extra work does not contradict that already done.

3

- Each question and part question should be considered independently and marks for one question should not be disallowed if they are contradicted by working or answers in another question or part question.
- Any legible crossed-out work that has not been replaced can be marked; but, if work has been replaced, the crossed-out part should be ignored.
- If the child's response is numerically or algebraically equivalent to the answer in the mark scheme, the mark should be given unless a particular form of answer was specified by the question.
- Diagrams, symbols or words are acceptable for explanations or responses.
- Where students are required to indicate the correct answer in a specific way, e.g. by underlining, marks should be awarded for any unambiguous indication, e.g. circling or ticking.
- Any method of setting out working should be accepted.
- Standard rules for acceptable formats of answers involving units, money, duration and time are given overleaf.

Each question on the test paper has a box beside it for the teacher to record the mark obtained. It is advisable to use these boxes so that students, and others looking at the test papers, can clearly see where the marks have been awarded.

It should also be noted that marking in red ink and using the mark boxes is an essential requirement for the Achievement tests.

General rules for alternative answers

In most places on the mark schemes acceptable and unacceptable alternative answers are given in detail, however some general rules are given overleaf and are not necessarily repeated in full for each question that they apply.

Number and Place value

The table shows various general rules in terms of acceptable decimal answers.

Accept
Accept omission of leading zero if answer is clearly shown, e.g. .675
Accept trailing zeros, unless the question has asked for a specific number of decimal places, e.g. 0.7000
Always accept appropriate trailing zeros, e.g. 3.00m; 5.000kg
Accept a comma as a decimal point if that is that convention that you have taught the children, e.g. 0,638

Units

For questions involving quantities, e.g. length, mass, time or money, correct units must be given in the answer. The table shows acceptable and unacceptable versions of the answer 1.85m.

	Correct answer	Also accept	Do not accept
Units are not given on answer line and question does not specify unit for the answer.	1.85m	Correct conversions provided that the unit is stated, e.g. 1m 85cm 185cm 1850mm 0.00185km	1.85 185m
If the unit is given on the answer line, e.g. .....m	.....1.85..... m	Correct conversions, provided the unit is stated unambiguously, e.g. .....185cm..... m	.....185.....m.....1850.... m etc.
If the question states the unit that the answer should be given in a specified unit, e.g. "Give your answer in metres"	1.85m	1.85 1m 85cm	185; 1850 Any conversions to other units, e.g. 185cm

Note: if the answer line is left blank but the correct answer is given elsewhere on the page, it can be marked correct if the units match those on the answer line or are unambiguously stated.

Money

For questions involving money, it is essential that appropriate units are given in the answer.

The table shows acceptable and unacceptable versions.

	Accept	Do not accept
If the amount is in dollars and cents, the answer should be given to two decimal places.	\$0.30 \$9 or \$9.00	
If units are not given on answer line	Any unambiguous indication of the correct amount, e.g. 30 cents; 30 c \$0.30; \$0.30c; \$0.30cents \$0-30; \$0=30; \$0:30	30 or 0.30 without a unit Incorrect or ambiguous answers, e.g. \$0.3; \$30; \$30cents; 0.30cents
If \$ is shown on the answer line	\$..... 0.30 \$..... 0.30 cents Accept all unambiguous indications, as shown above	\$..... 30 \$..... 30 cents (this cannot be accepted because it is ambiguous, but if the dollar sign is deleted it becomes acceptable)
If cents is shown on the answer line	.....30.....cents \$0.30.....cents	.....0.30.....cents \$30.....cents

Duration

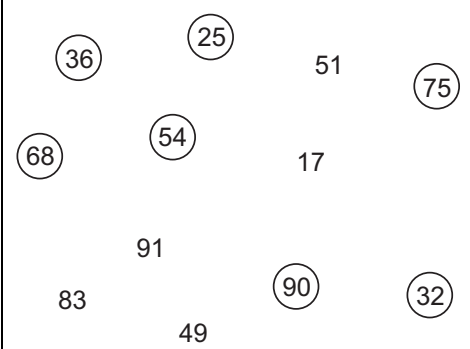
Accept any unambiguous method of showing duration and all reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs).

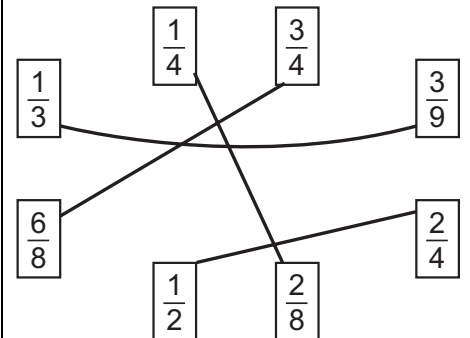
Accept	Do not accept
Any unambiguous indication using any reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs), e.g. 2 hours 30 minutes; 2h 30m; 02h 30m 5 min 24 sec; 00h 05m 24s	Incorrect or ambiguous formats, e.g. 2.30; 2.3; 2.30 hours; 2.30 min; 2h 3; 2.3h
Any correct conversion with appropriate units, e.g. 2.5 hours; 150 mins 324 seconds	2.5; 150 304
Also accept unambiguous digital stopwatch format, e.g. 02:30:00 00:05:24; 05:24s	Do not accept ambiguous indications, e.g. 02:30 5.24

Time

There are many ways to write times, in both numbers and words, and marks should be awarded for any unambiguous method. Accept time written in numbers or words unless there is a specific instruction in the question. Some examples are given in the table.

Accept	Do not accept
<p>Any unambiguous indication of correct answer in numbers, words or a combination of the two, e.g. 07:30, 19:00</p> <p>0730; 07 30; 07.30; 07,30; 07-30; 7.30; 730 a.m.; 7.30am; 7.30 in the morning</p> <p>Half past seven (o'clock) in the morning Thirty minutes past seven am Also accept: O-seven-thirty</p> <p>1900; 19 00; 19_00 etc.</p> <p>Nineteen hundred (hours) Seven o'clock in the afternoon/evening</p> <p>Accept correct conversion to 12-hour clock, e.g. 16:42 4:42 p.m.</p> <p>Sixteen forty two Four-forty-two in the afternoon/evening Four forty two p.m. Forty two (minutes) past four p.m. Eighteen (minutes) to five in the evening</p> <p>Also accept a combination of numbers and words, e.g. 18 minutes to 5 p.m. 42 minutes past 4 in the afternoon</p>	<p>Incorrect or ambiguous formats, e.g.</p> <p>07.3; 073; 07 3; 730; 73; 7.3; 7.3am; 7.30p.m</p> <p>19; 190; 19 000; 19.00am; 7.00am</p> <p>4.42am; 0442; 4.42</p> <p>Forty two (minutes) past sixteen Eighteen (minutes) to seventeen</p>

Question	Mark	Answer	Additional information
1 2Nn5	2		<p>All 7 circles correct – 2 marks – with no wrong.</p> <p>6 circles correct – 1 mark – with one wrong.</p>

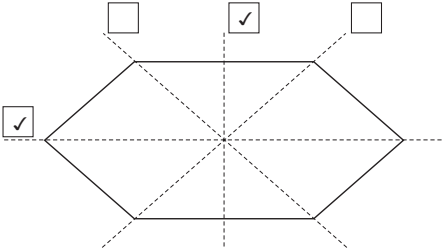
Question	Mark	Answer	Additional information
2 3Nn13	1		

Question	Mark	Answer	Additional information
3 3Nc9	2	10	<p>2 marks for correct answer</p> <p>1 mark can be awarded if evidence of:</p> <p>$43 \div 4 = 10 \text{ rem. } 3$</p> <p>or</p> <p>$43 \div 4 = 10.75$</p>

Question	Mark	Answer	Additional information
4 3P4	1	I think Monty is wrong because	The explanation should include the statement that: $\$1.00 - 72c = 28c$ (not $18c$) or $72c + 18c = 90c$ or $72c + 28c = 100c$ ($\$1$) or $\$1.00 - 28c = 72c$ The mark is given for the word "wrong" and the explanation.

Question	Mark	Answer	Additional information
5 a 3P2	1	10	
b 3P2	1	6	

Question	Mark	Answer	Additional information
6 3D1	1	16	

Question	Mark	Answer	Additional information
7 3Ss3	1		Both correct for answer. No other ticks

Question	Mark	Answer	Additional information
8 3Sp2	1	West	

Question	Mark	Answer	Additional information
9 3Sm7	1	2 ½ 2.5 $2\frac{30}{60}$	Accept “two and a half”, also 2 (two) minutes 30 (thirty) seconds.

Question	Mark	Answer	Additional information
10 4Nn9	1	17 11 5 -1 -7 -13	Both correct for mark.

Question	Mark	Answer	Additional information
11 a 4Nn13	1	2/6	Also accept 1/3
b 4Nn13	1	1 3/4	Also accept 1 6/8

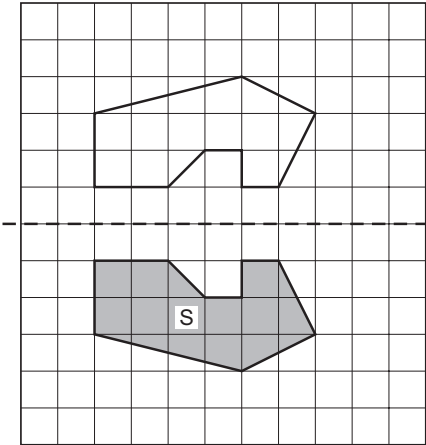
Question	Mark	Answer	Additional information
12 a 4Nc9	1	56	
b 4Nc13	1	2400	

Question	Mark	Answer	Additional information
13 4Nc7	1	12	

Question	Mark	Answer	Additional information
14 a 4P1	1	36	
b 4P1	1	224	

Question	Mark	Answer	Additional information
15 a 4P5	1	\$34.95	
b 4P5	1	\$19.50	Accept \$19.5

Question	Mark	Answer	Additional information
16 a 4D1	1	25	
b 4D1	1	50	

Question	Mark	Answer	Additional information
17 4Ss5	1		The shape must be accurate enough to show the student understands this reflection.

Question	Mark	Answer	Additional information
18 a 4Sp9	1	45	
b 4Sp10	1	a c d b	

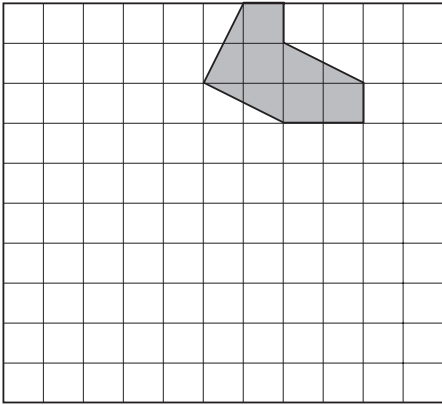
Question	Mark	Answer	Additional information
19 a 4Sm9	1	58 minutes	
b 4Sm9	1	6 minutes	Accept if 19a-52=19b

Question	Mark	Answer	Additional information
20 a 5Nn16	1	62	
b 5Nn16	1	37	

Question	Mark	Answer	Additional information
21 a 5Nc3	1	9320	
b 5Nc3	1	12194	(also give 1 mark if (a) is wrong but (b) = a + 2874)

Question	Mark	Answer	Additional information
22 5P4	1	“Five lots of b are equal to a”	Also accept equivalent implying that a is equal to five times b ; or a is five times bigger than b ; or five times b makes a ; also accept answers including an example in addition to the explanation, e.g. If a equals 10, b equals 2, because 5 times 2 = 10.

Question	Mark	Answer	Additional information
23 a 6D5	1	47.6	
b 6D5	1	47	

Question	Mark	Answer	Additional information
24 5Ss5	1		Drawing must be accurate enough to show that the student understands this translation.

Question	Mark	Answer	Additional information
25 6Sp5	1	32	

Question	Mark	Answer	Additional information
26 6Sm2	1	345	

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UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
Cambridge International Primary Achievement Test

MATHEMATICS

0842/02

Paper 2

May/June 2008

MARK SCHEME

Maximum Mark : 39



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3

- Each question and part question should be considered independently and marks for one question should not be disallowed if they are contradicted by working or answers in another question or part question.
- Any legible crossed-out work that has not been replaced can be marked; but, if work has been replaced, the crossed-out part should be ignored.
- If the child's response is numerically or algebraically equivalent to the answer in the mark scheme, the mark should be given unless a particular form of answer was specified by the question.
- Diagrams, symbols or words are acceptable for explanations or responses.
- Where students are required to indicate the correct answer in a specific way, e.g. by underlining, marks should be awarded for any unambiguous indication, e.g. circling or ticking.
- Any method of setting out working should be accepted.
- Standard rules for acceptable formats of answers involving units, money, duration and time are given overleaf.

Each question on the test paper has a box beside it for the teacher to record the mark obtained. It is advisable to use these boxes so that students, and others looking at the test papers, can clearly see where the marks have been awarded.

It should also be noted that marking in red ink and using the mark boxes is an essential requirement for the Achievement tests.

General rules for alternative answers

In most places on the mark schemes acceptable and unacceptable alternative answers are given in detail, however some general rules are given overleaf and are not necessarily repeated in full for each question that they apply.

Number and Place value

The table shows various general rules in terms of acceptable decimal answers.

Accept
Accept omission of leading zero if answer is clearly shown, e.g. .675
Accept trailing zeros, unless the question has asked for a specific number of decimal places, e.g. 0.7000
Always accept appropriate trailing zeros, e.g. 3.00m; 5.000kg
Accept a comma as a decimal point if that is that convention that you have taught the children, e.g. 0,638

Units

For questions involving quantities, e.g. length, mass, time or money, correct units must be given in the answer. The table shows acceptable and unacceptable versions of the answer 1.85m.

	Correct answer	Also accept	Do not accept
Units are not given on answer line and question does not specify unit for the answer.	1.85m	Correct conversions provided that the unit is stated, e.g. 1m 85cm 185cm 1850mm 0.00185km	1.85 185m
If the unit is given on the answer line, e.g. .....m	.....1.85..... m	Correct conversions, provided the unit is stated unambiguously, e.g. .....185cm..... m	.....185.....m.....1850.... m etc.
If the question states the unit that the answer should be given in a specified unit, e.g. "Give your answer in metres"	1.85m	1.85 1m 85cm	185; 1850 Any conversions to other units, e.g. 185cm

Note: if the answer line is left blank but the correct answer is given elsewhere on the page, it can be marked correct if the units match those on the answer line or are unambiguously stated.

Money

For questions involving money, it is essential that appropriate units are given in the answer.

The table shows acceptable and unacceptable versions.

	Accept	Do not accept
If the amount is in dollars and cents, the answer should be given to two decimal places.	\$0.30 \$9 or \$9.00	
If units are not given on answer line	Any unambiguous indication of the correct amount, e.g. 30 cents; 30 c \$0.30; \$0.30c; \$0.30cents \$0-30; \$0=30; \$0:30	30 or 0.30 without a unit Incorrect or ambiguous answers, e.g. \$0.3; \$30; \$30cents; 0.30cents
If \$ is shown on the answer line	\$..... 0.30 \$..... 0.30 cents Accept all unambiguous indications, as shown above	\$..... 30 \$..... 30 cents (this cannot be accepted because it is ambiguous, but if the dollar sign is deleted it becomes acceptable)
If cents is shown on the answer line	.....30.....cents \$0.30.....cents	.....0.30.....cents \$30.....cents

Duration

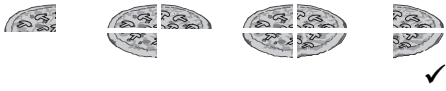
Accept any unambiguous method of showing duration and all reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs).

Accept	Do not accept
Any unambiguous indication using any reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs), e.g. 2 hours 30 minutes; 2h 30m; 02h 30m 5 min 24 sec; 00h 05m 24s	Incorrect or ambiguous formats, e.g. 2.30; 2.3; 2.30 hours; 2.30 min; 2h 3; 2.3h
Any correct conversion with appropriate units, e.g. 2.5 hours; 150 mins 324 seconds	2.5; 150 304
Also accept unambiguous digital stopwatch format, e.g. 02:30:00 00:05:24; 05:24s	Do not accept ambiguous indications, e.g. 02:30 5.24

Time

There are many ways to write times, in both numbers and words, and marks should be awarded for any unambiguous method. Accept time written in numbers or words unless there is a specific instruction in the question. Some examples are given in the table.

Accept	Do not accept
<p>Any unambiguous indication of correct answer in numbers, words or a combination of the two, e.g. 07:30, 19:00</p> <p>0730; 07 30; 07.30; 07,30; 07-30; 7.30; 730 a.m.; 7.30am; 7.30 in the morning</p> <p>Half past seven (o'clock) in the morning Thirty minutes past seven am Also accept: O-seven-thirty</p> <p>1900; 19 00; 19_00 etc.</p> <p>Nineteen hundred (hours) Seven o'clock in the afternoon/evening</p> <p>Accept correct conversion to 12-hour clock, e.g. 16:42 4:42 p.m.</p> <p>Sixteen forty two Four-forty-two in the afternoon/evening Four forty two p.m. Forty two (minutes) past four p.m. Eighteen (minutes) to five in the evening</p> <p>Also accept a combination of numbers and words, e.g. 18 minutes to 5 p.m. 42 minutes past 4 in the afternoon</p>	<p>Incorrect or ambiguous formats, e.g.</p> <p>07.3; 073; 07 3; 730; 73; 7.3; 7.3am; 7.30p.m</p> <p>19; 190; 19 000; 19.00am; 7.00am</p> <p>4.42am; 0442; 4.42</p> <p>Forty two (minutes) past sixteen Eighteen (minutes) to seventeen</p>


Question	Mark	Answer	Additional information
1 4Nn14	1		

Question	Mark	Answer	Additional information
2 3Nn13	2	$\frac{2}{3}$ $\frac{1}{3}$ $\frac{5}{25}$ $\frac{12}{15}$ $\frac{4}{5}$ $\frac{6}{9}$ $\frac{2}{6}$ $\frac{2}{10}$	<p>All four lines correct - award 2 marks</p> <p>Two or three lines correct - 1 mark</p>

Question	Mark	Answer	Additional information
3 2Nc15	1	12	

Question	Mark	Answer	Additional information
4 a 3P8	1	47 cents (accept \$0.47)	Do not award marks if correct currency is not indicated.
b 3P8	1	\$1.53 (accept 1 dollar 53 cents.)	Accept if: 4(b) = \$2.00 – 4(a)

Question	Mark	Answer	Additional information
5 a 3D1	1	20	
b 3D1	1	6	

Question	Mark	Answer	Additional information
6 3Ss1	1		All four must be correct. No errors.

Question	Mark	Answer	Additional information
7 2Sp4	1	A:B East then South (accept E, S) B:C West then South (accept W, S)	1 mark for both answers correct.

Question	Mark	Answer	Additional information
8 2Sm6	1	February, April, July, September, November	Accept answers with incorrect spelling, as long as the correct months are clearly intended.

Question	Mark	Answer	Additional information
9 4Nn17	1		All three matches correct = 1 mark

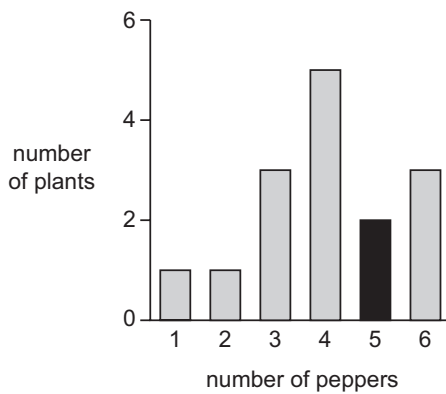
Question	Mark	Answer	Additional information
10 a 4Nn9	1	-3	
b 4Nn9	1	-4	

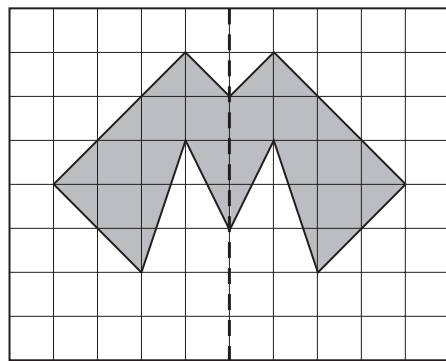
Question	Mark	Answer	Additional information
11 a 5Nc4	1	1.24	
b 5Nc4	1	0.65	

Question	Mark	Answer	Additional information
12 a 5Nc11	1	Working should show either $2710 + 5890 = 8600$, or $2700 + 5900 = 8600$. The mark should only be given if both the rounded numbers and the answer are given	
b 5Nc11	1	8599	

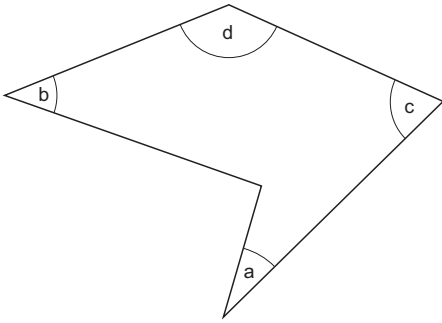
Question	Mark	Answer	Additional information
13 5P6	2	237.60	<p>One mark for the correct answer. The second mark is for a correct method of working out, for example evidence of:</p> <p>$12 \times 22 = 264$ $264 \times 0.9 = 237.6$</p> <p>or</p> <p>$22 - 2.2 = 19.8$ $19.8 \times 12 = 237.6$</p> <p>or</p> <p>$22 \times 0.9 = 19.8$ $19.8 \times 12 = 237.6$</p> <p>or</p> <p>$12 \times 22 = 264$ $264 - 26.4 = 237.6$</p>

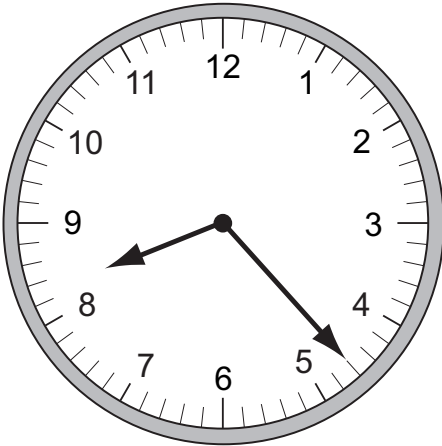
Question	Mark	Answer	Additional information
14 a 5P2	1	19	
b 5P2	1	3	

Question		Mark	Answer	Additional information
15	a 5D4	1	4	
	b 5D3	1	A bar shows a value of 2 in the 5 peppers column 	The bar doesn't have to be identical to the other bars as long as it clearly represents the correct answer.

Question		Mark	Answer	Additional information
16	5Ss4	1		The shape must be accurate enough to show that the student understands the symmetry.

Question		Mark	Answer	Additional information
17	a 4Ss1	1	Cuboid	Accept square or rectangular prism.
	b 4Ss1	1	The description must mention that it has 6 equal sides. This is the only essential element of the description.	Or 6 equal angles

Question	Mark	Answer	Additional information
18 4Sp10	1		

Question	Mark	Answer	Additional information
19 a 4Sm7	1	6:07	Accept 18:07
b 4Sm7	1		Accept hands drawn showing 8:22 or 8:24

Question	Mark	Answer	Additional information
20 5Nn17	1	450	

Question	Mark	Answer	Additional information
21 5Nc6	1	128.5	

Question	Mark	Answer	Additional information
22 5P5	2	William was wrong.	<p>The explanation should identify that there are 200 sevens in 1400, not 20.</p> $\begin{array}{r} 228 \text{ r}1 \\ 7 \overline{)1597} \\ \underline{1400} \quad \text{error} \\ 197 \quad 200 \text{ not } 20 \\ \underline{140} \quad 20 \\ 57 \\ \underline{56} \quad 8 \\ 1 \end{array}$ <p>Thus the answer is 228 r1.</p> <p>Give one mark if the correct answer is given but no explanation of the error.</p>

Question	Mark	Answer	Additional information
23 6P4	1	$P = 2s + 3t$	<p>Accept:</p> $P = 3t + 2s$ <p>or</p> $P = s + s + t + t + t$ <p>or equivalent</p>

Question	Mark	Answer	Additional information
24 6D1	1	Even chance. or 50:50 or Equal chance or 50% chance or $\frac{1}{2}$ (half)	

Question	Mark	Answer	Additional information
25 5Ss5	1		The shape must be drawn accurately enough to show that the student understands the translation.

Question	Mark	Answer	Additional information
26 5Sp2	1	a, e	

Question	Mark	Answer	Additional information
27 5Sm7	1	223.2 cm ²	The correct unit cm ² must be used for the mark to be rewarded.

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UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
Cambridge International Primary Achievement Test

MATHEMATICS

0842/01

Paper 1

October/November 2008

MARK SCHEME

Maximum Mark : 39

IMPORTANT NOTICE

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This document consists of **11** printed pages and **1** blank page.



Mathematics mark schemes – Achievement Test

Guidelines for marking test papers

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The guidelines below should be followed throughout (**unless the mark scheme states otherwise**):

- A correct answer should always be awarded full marks even if the working shown is wrong.
- Where more than one mark is available for a question the mark scheme explains where each mark should be awarded. In some cases marks are available for demonstration of the correct method even if the final answer is incorrect. The method marks can be awarded if the correct method is used but a mistake has been made in the calculation, resulting in a wrong answer. Method marks can also be awarded if the calculation is set up and performed correctly but incorrect values have been used, e.g. due to misreading the question or a mistake earlier in a series of calculations.
- If a question uses the answer to a previous question or part question that the student answered incorrectly, all available marks can be awarded for the latter question if appropriate calculations are performed correctly using the value carried forward. Places where such consideration should be made are indicated in the mark schemes. In these cases, it is not possible to provide all the alternative acceptable answers and the marker must follow the student's working to determine whether credit should be given or not.
- Half marks should not be awarded and at no point should an answer be awarded more than the maximum number of marks available, regardless of the quality of the answer.
- If the student has given more than one answer, the marks can be awarded if all the answers given are correct. However, if correct and incorrect answers are given together, marks should not be awarded (marks for correct working out can still be gained).
- If the answer line is blank but the correct answer is given elsewhere, e.g. an annotation on a graph or at the end of the working out, the marks can be awarded provided it is clear that the student has understood the requirements of the question.
- If the response on the answer line is incorrect but the correct answer is shown elsewhere, full marks can still be awarded if the student has made the error when copying the answer onto the answer line. If the incorrect final answer is the result of redundant additional working after the correct answer had been reached, the marks can be awarded provided the extra work does not contradict that already done.

- Each question and part question should be considered independently and marks for one question should not be disallowed if they are contradicted by working or answers in another question or part question.
- Any legible crossed-out work that has not been replaced can be marked; but, if work has been replaced, the crossed-out part should be ignored.
- If the student's response is numerically or algebraically equivalent to the answer in the mark scheme, the mark should be given unless a particular form of answer was specified by the question.
- Diagrams, symbols or words are acceptable for explanations or responses.
- Where students are required to indicate the correct answer in a specific way, e.g. by underlining, marks should be awarded for any unambiguous indication, e.g. circling or ticking.
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- Standard rules for acceptable formats of answers involving units, money, duration and time are given overleaf.

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Accept omission of leading zero if answer is clearly shown, e.g. .675
Accept trailing zeros, unless the question has asked for a specific number of decimal places, e.g. 0.7000
Always accept appropriate trailing zeros, e.g. 3.00m; 5.000kg
Accept a comma as a decimal point if that is that convention that you have taught the students, e.g. 0,638

Units

For questions involving quantities, e.g. length, mass, time or money, correct units must be given in the answer. The table shows acceptable and unacceptable versions of the answer 1.85m.

	Correct answer	Also accept	Do not accept
Units are not given on answer line and question does not specify unit for the answer.	1.85m	Correct conversions provided that the unit is stated, e.g. 1m 85cm 185cm 1850mm 0.00185km	1.85 185m
If the unit is given on the answer line, e.g. .....m	.....1.85..... m	Correct conversions, provided the unit is stated unambiguously, e.g. .....185cm..... m	.....185.....m.....1850..... m etc.
If the question states that the answer should be given in a specified unit, e.g. "Give your answer in metres"	1.85m	1.85 1m 85cm	185; 1850 Any conversions to other units, e.g. 185cm

Note: if the answer line is left blank but the correct answer is given elsewhere on the page, it can be marked correct if the units match those on the answer line or are unambiguously stated.

Money

For questions involving money, it is essential that appropriate units are given in the answer.

The table shows acceptable and unacceptable versions.

	Accept	Do not accept
If the amount is in dollars and cents, the answer should be given to two decimal places.	\$0.30 \$9 or \$9.00	
If units are not given on the answer line	Any unambiguous indication of the correct amount, e.g. 30 cents; 30 c \$0.30; \$0.30c; \$0.30cents \$0-30; \$0=30; \$0:30	30 or 0.30 without a unit Incorrect or ambiguous answers, e.g. \$0.3; \$30; \$30cents; 0.30cents
If \$ is shown on the answer line	\$..... 0.30 \$..... 0.30 cents Accept all unambiguous indications, as shown above	\$..... 30 \$..... 30 cents (this cannot be accepted because it is ambiguous, but if the dollar sign is deleted it becomes acceptable)
If cents is shown on the answer line	.....30.....cents \$0.30.....cents	.....0.30.....cents \$30.....cents

Duration

Accept any unambiguous method of showing duration and all reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs).




Accept	Do not accept
Any unambiguous indication using any reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs), e.g. 2 hours 30 minutes; 2h 30m; 02h 30m 5 min 24 sec; 00h 05m 24s	Incorrect or ambiguous formats, e.g. 2.30; 2.3; 2.30 hours; 2.30 min; 2h 3; 2.3h
Any correct conversion with appropriate units, e.g. 2.5 hours; 150 mins 324 seconds	2.5; 150 324
Also accept unambiguous digital stopwatch format, e.g. 02:30:00 00:05:24; 05:24s	Do not accept ambiguous indications, e.g. 02:30 5.24

Time

There are many ways to write times, in both numbers and words, and marks should be awarded for any unambiguous method. Accept time written in numbers or words unless there is a specific instruction in the question. Some examples are given in the table.

Accept	Do not accept
<p>Any unambiguous indication of correct answer in numbers, words or a combination of the two, e.g. 07:30, 19:00</p> <p>0730; 07 30; 07.30; 07,30; 07-30; 7.30; 730 a.m.; 7.30am; 7.30 in the morning</p> <p>Half past seven (o'clock) in the morning Thirty minutes past seven am Also accept: O-seven-thirty</p> <p>1900; 19 00; 19_00 etc.</p> <p>Nineteen hundred (hours) Seven o'clock in the afternoon/evening</p> <p>Accept correct conversion to 12-hour clock, e.g. 16:42 4:42 p.m.</p> <p>Sixteen forty two Four-forty-two in the afternoon/evening Four forty two p.m. Forty two (minutes) past four p.m. Eighteen (minutes) to five in the evening</p> <p>Also accept a combination of numbers and words, e.g. 18 minutes to 5 p.m. 42 minutes past 4 in the afternoon</p>	<p>Incorrect or ambiguous formats, e.g.</p> <p>07.3; 073; 07 3; 730; 73; 7.3; 7.3am; 7.30p.m</p> <p>19; 190; 19 000; 19.00am; 7.00am</p> <p>4.42am; 0442; 4.42</p> <p>Forty two (minutes) past sixteen Eighteen (minutes) to seventeen</p>

Question	Mark	Answer	
1 2Nn3	1	Accept any answers that indicate 'add 4' or '+ 4'	e.g. each number is 4 more (bigger)

Question	Mark	Answer	
2 2Nc3	1	 Can be any number  Must be the answer to  + 8	

Question	Mark	Answer	
3 2Ss1	1	3	

Question	Mark	Answer	
4 2P5	1	(\$) 56	

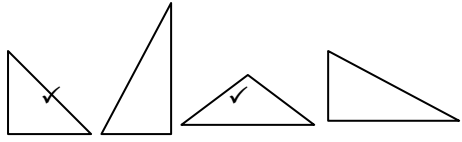
Question	Mark	Answer	
5 2D1	1	5	

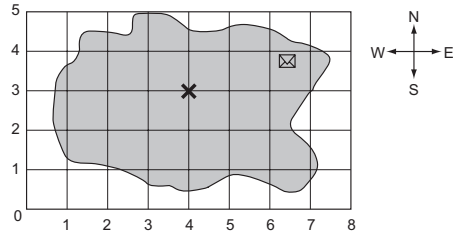
Question	Mark	Answer	
6a 3Nc7	1	(\$) 27	
b 3Nc7	1	3 (seats)	

Question	Mark	Answer	
7 3Sm8	1	Saturday	

Question	Mark	Answer	
8 4Nn13	1	$25(g)$	

Question	Mark	Answer	
9 4Nc8	1	7 x 4 should be corrected to = 28, not = 27 9 x 4 should be corrected to = 36, not = 35	Both correct for 1 mark

Question	Mark	Answer	
10 4Ss2	1		Both correct for 1 mark. Accept any indication to show the correct answer.

Question	Mark	Answer	
11a 4Sp2	1	NE accept northeast	
b 4Sp4	1		Any indication will do.

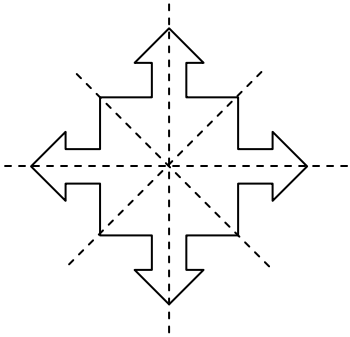
Question	Mark	Answer	
12 4Sm2	1	Accept either 3.95 m or 3m 95cm	Also accept 3950mm

Question	Mark	Answer	
13 4P5	1	30 (legs)	

Question	Mark	Answer	
14 4P1	3	1 mark for evidence of 10 hooks cost \$3.70 and 4 floats cost \$7.20 1 mark for evidence of Total cost of items = \$3.70 + \$7.20 + \$15.50 = \$26.40 1 mark for evidence of Change from \$50 = \$50 - \$26.40 = \$23.60	3 marks in total

Question	Mark	Answer	
15a 4D2	1	15	Do not accept tally
b 4D2	1	Scooter IIII IIII IIII II	

Question	Mark	Answer	
16a 5Nn3	1	<u>24 645</u> <u>23 690</u> <u>23 546</u>	
b 5Nn3	1	any one answer 25 235 to 25 244 inclusive	

Question	Mark	Answer	
17 5Ss3	1		All 4 lines correct for 1 mark. Allow any indication of the correct lines of symmetry.

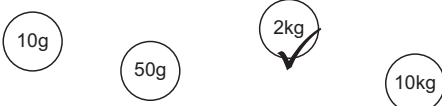
Question	Mark	Answer	
18 5P6	2	18.9(kg)	2 marks for correct answer. If working includes a method of finding 5% of 18 eg. $18 \div 10 \div 2 = 0.9$, award 1 mark even if final answer is incorrect

Question	Mark	Answer	
19a 5P4	1	Length plus length plus width plus width or 2 x length add 2 x width or 2 x (length +width)	Any equivalent statement is acceptable.
b 5P4	1	280 (m)	

Question	Mark	Answer	
20 6Nn15	1	7.05, 7.5, 70.5, 75.05, 75.5	

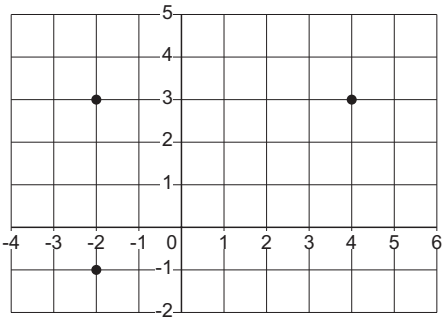
Question	Mark	Answer	
21 6Nc8	2	13.7	2 marks for correct answer. Allow 1 mark if a correct method is shown but final answer is incorrect. E.g. $\begin{array}{r} 5 \overline{) 68.5} \\ \underline{- 50.0} \\ 18.5 \\ \underline{- 15.0} \\ 3.5 \\ \underline{- 3.5} \\ 0.0 \end{array} \quad \begin{array}{l} 10 \times 5 \\ 3 \times 5 \\ 0.7 \times 5 \end{array}$ $\begin{array}{r} 13.7 \\ 5 \overline{) 618.35} \end{array}$

Question	Mark	Answer	
22 6Ss3	1	Net B	

Question	Mark	Answer	
23a 6Sm4	1		Accept any indication of 2kg.
b 6Sm4	1	73mm	Accept answers from 71 to 75mm

Question	Mark	Answer	
24 6D1	2	A 1 to 6 dice will land on an even number	1 mark
		Sam will choose a red sweet from a bag containing 4 red and 4 blue sweets.	1 mark

Question	Mark	Answer	
25a 6Nn20	1	4	
b 6Nn20	1	13	

Question	Mark	Answer	
26a 6Sp1	1		
b 6Sp1	1	(4 , -1)	

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UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
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MATHEMATICS

0842/02

Paper 2

October/November 2008

MARK SCHEME

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- Diagrams, symbols or words are acceptable for explanations or responses.
- Where students are required to indicate the correct answer in a specific way, e.g. by underlining, marks should be awarded for any unambiguous indication, e.g. circling or ticking.
- Any method of setting out working should be accepted.
- Standard rules for acceptable formats of answers involving units, money, duration and time are given overleaf.

Each question on the test paper has a box beside it for the teacher to record the mark obtained. It is advisable to use these boxes so that students, and others looking at the test papers, can clearly see where the marks have been awarded.

It should also be noted that marking in red ink and using the mark boxes is an essential requirement for the Achievement tests.

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In most places on the mark schemes acceptable and unacceptable alternative answers are given in detail, however some general rules are given overleaf and are not necessarily repeated in full for each question that they apply.

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The table shows various general rules in terms of acceptable decimal answers.

Accept
Accept omission of leading zero if answer is clearly shown, e.g. .675
Accept trailing zeros, unless the question has asked for a specific number of decimal places, e.g. 0.7000
Always accept appropriate trailing zeros, e.g. 3.00m; 5.000kg
Accept a comma as a decimal point if that is that convention that you have taught the students, e.g. 0,638

Units

For questions involving quantities, e.g. length, mass, time or money, correct units must be given in the answer. The table shows acceptable and unacceptable versions of the answer 1.85m.

	Correct answer	Also accept	Do not accept
Units are not given on answer line and question does not specify unit for the answer.	1.85m	Correct conversions provided that the unit is stated, e.g. 1m 85cm 185cm 1850mm 0.00185km	1.85 185m
If the unit is given on the answer line, e.g. .....m	.....1.85..... m	Correct conversions, provided the unit is stated unambiguously, e.g. .....185cm..... m	.....185.....m.....1850..... m etc.
If the question states that the answer should be given in a specified unit, e.g. "Give your answer in metres"	1.85m	1.85 1m 85cm	185; 1850 Any conversions to other units, e.g. 185cm

Note: if the answer line is left blank but the correct answer is given elsewhere on the page, it can be marked correct if the units match those on the answer line or are unambiguously stated.

Money

For questions involving money, it is essential that appropriate units are given in the answer.

The table shows acceptable and unacceptable versions.

	Accept	Do not accept
If the amount is in dollars and cents, the answer should be given to two decimal places.	\$0.30 \$9 or \$9.00	
If units are not given on answer line	Any unambiguous indication of the correct amount, e.g. 30 cents; 30 c \$0.30; \$0.30c; \$0.30cents \$0-30; \$0=30; \$0:30	30 or 0.30 without a unit Incorrect or ambiguous answers, e.g. \$0.3; \$30; \$30cents; 0.30cents
If \$ is shown on the answer line	\$..... 0.30 \$..... 0.30 cents Accept all unambiguous indications, as shown above	\$..... 30 \$..... 30 cents (this cannot be accepted because it is ambiguous, but if the dollar sign is deleted it becomes acceptable)
If cents is shown on the answer line	.....30.....cents \$0.30.....cents	.....0.30.....cents \$30.....cents

Duration

Accept any unambiguous method of showing duration and all reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs).

Accept	Do not accept
Any unambiguous indication using any reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs), e.g. 2 hours 30 minutes; 2h 30m; 02h 30m 5 min 24 sec; 00h 05m 24s	Incorrect or ambiguous formats, e.g. 2.30; 2.3; 2.30 hours; 2.30 min; 2h 3; 2.3h
Any correct conversion with appropriate units, e.g. 2.5 hours; 150 mins 324 seconds	2.5; 150 324
Also accept unambiguous digital stopwatch format, e.g. 02:30:00 00:05:24; 05:24s	Do not accept ambiguous indications, e.g. 02:30 5.24

Time

There are many ways to write times, in both numbers and words, and marks should be awarded for any unambiguous method. Accept time written in numbers or words unless there is a specific instruction in the question. Some examples are given in the table.

Accept	Do not accept
<p>Any unambiguous indication of correct answer in numbers, words or a combination of the two, e.g. 07:30, 19:00</p> <p>0730; 07 30; 07.30; 07,30; 07-30; 7.30; 730 a.m.; 7.30am; 7.30 in the morning</p> <p>Half past seven (o'clock) in the morning Thirty minutes past seven am Also accept: O-seven-thirty</p> <p>1900; 19 00; 19_00 etc.</p> <p>Nineteen hundred (hours) Seven o'clock in the afternoon/evening</p> <p>Accept correct conversion to 12-hour clock, e.g. 16:42 4:42 p.m.</p> <p>Sixteen forty two Four-forty-two in the afternoon/evening Four forty two p.m. Forty two (minutes) past four p.m. Eighteen (minutes) to five in the evening</p> <p>Also accept a combination of numbers and words, e.g. 18 minutes to 5 p.m. 42 minutes past 4 in the afternoon</p>	<p>Incorrect or ambiguous formats, e.g.</p> <p>07.3; 073; 07 3; 730; 73; 7.3; 7.3am; 7.30p.m</p> <p>19; 190; 19 000; 19.00am; 7.00am</p> <p>4.42am; 0442; 4.42</p> <p>Forty two (minutes) past sixteen Eighteen (minutes) to seventeen</p>

Question	Mark	Answer	
1	2Nn10	1	89

Question	Mark	Answer	
2	2Nc21	1	(\$)90

Question	Mark	Answer	
3	2P5	2	<p>2 (hours) 30 (minutes) 2 marks for correct answer.</p> <p>Award 1 mark if 150 minutes is shown in working out.</p> <p>Also award 1 mark if the hours and minutes are correct based on the wrong number of minutes, e.g. 100 minutes worked out, with 1 hours 40 minutes.</p>

Question	Mark	Answer	
4a	2D1	1	7
b	2D1	1	4

Question	Mark	Answer	
5	2Ss1	1	Cuboid Accept square prism or rectangular prism.

Question	Mark	Answer	
6	2Sm2	1	Accept 145 (cm).

Question	Mark	Answer	
7a	4D5	1	23
b	4D5	1	9

Question	Mark	Answer	
8a 4Nn16	1	$\frac{6}{100}$ accept 'hundredths' (spelling not important)	or equivalent
b 5Nn20	1	$\frac{6}{10}$ or equivalent	

Question	Mark	Answer	
9a 4Nn12	1	4	
b 4Nn12	1	2	

Question	Mark	Answer	
10 4Nc7	1	13	

Question	Mark	Answer	
11a 5P1	1	12.23 pm Accept 12.23pm	Also accept 12:23 or 12.23
b 5P1	1	29 minutes	

Question	Mark	Answer	
12 4Ss1	1	(Regular) hexagon	Accept reasonable misspellings. hexagon or regular hexagon

Question	Mark	Answer	
13 4Sp7	1	360°	Accept 360

Question	Mark	Answer	
14a 4Sm7	1	11:23	Accept 11.23, 23:23 or 23.23 Do not accept any words in the answer. Except am or pm.
b 4Sm7	1	02:50 or 14:50	Also accept 2:50.

Question	Mark	Answer	
15 5P2	1	Any three numbers which correctly total 1. For example, $0.2 + 0.3 + 0.5$	Accept fractions, decimals and negative integers All three numbers must be different.

Question	Mark	Answer	
16a 5Sp2	1	Either A and C or B and D.	Accept C and A or D and B
b 5Sp2	1	Any one of: A and B B and A B and C C and B C and D D and C D and A A and D	

Question	Mark	Answer	
17a 5Sm4	1	g or kg Award mark if both circled.	Accept any reasonable indication of a correct answer.
b 5Sm4	1	200 mm	Accept any reasonable indication of a correct answer.

Question	Mark	Answer	
18a 6Nc6	1	40	
b 6Nc4	1	3	Do not accept "2 remainder 2", or "2"

Question	Mark	Answer	
19 6D4	1	2.81 (seconds)	

Question	Mark	Answer	
20a 5Nn14	1	$\frac{19}{4}$	
b 5Nn14	1	$\frac{15}{20}$ $\frac{12}{20}$ $\frac{15}{24}$ $\frac{10}{15}$ $\frac{20}{28}$	Any indicator of the correct answer will do

Question	Mark	Answer	
21 6Nn13	2	(\$12 and (\$16	1 mark for each correct answer

Question	Mark	Answer	
22 5P3	2	Byama is correct Accept explanations such as: $\frac{1}{2} = \frac{5}{10} = 0.5$ 0.5 is five tenths which simplifies to $\frac{1}{2}$ Diagrams which show the 2 quantities are equivalent.	1 mark 1 mark

Question	Mark	Answer	
23 6Ss1	2	Four equal sides. Rhombus	Four right angles. Rectangle
		One pair of opposite parallel sides. Trapezium	2 marks for all three correct answers. 1 mark for correct answer.

Question	Mark	Answer	
24a 6Nn8	1	1 ② ③ 4 ⑤ 6 ⑦ 8 9 10 ⑪ 12 ⑬ 14 15 16 ⑰ 18 ⑱ 20	All eight should be circled with no errors.

Question	Mark	Answer	
25 6Nc2	1	$5 \times (3 + 7) - 20 = 30$	

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Mathematics

Mark Schemes

Cambridge International Primary Achievement Test



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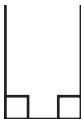
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0730; 07 30; 07.30; 07,30; 07-30; 7.30; 730 a.m.; 7.30am; 7.30 in the morning	07.3; 073; 07 3; 730; 73; 7.3; 7.3am; 7.30p.m
Half past seven (o'clock) in the morning Thirty minutes past seven am Also accept: O-seven-thirty	
1900; 19 00; 19_00 etc.	19; 190; 19 000; 19.00am; 7.00am
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Accept correct conversion to 12-hour clock, e.g. 16:42 4:42 p.m.	4.42am; 0442; 4.42
Sixteen forty two Four-forty-two in the afternoon/evening Four forty two p.m. Forty two (minutes) past four p.m. Eighteen (minutes) to five in the evening	Forty two (minutes) past sixteen Eighteen (minutes) to seventeen
Also accept a combination of numbers and words, e.g. 18 minutes to 5 p.m. 42 minutes past 4 in the afternoon	

Cambridge International Primary Achievement Test- Mathematics Paper 1

Question	Mark	Answer	Additional information								
1 3Nn7	1	One thousand and thirteen.	Accept mis-spellings where the answer is correctly intended.								
2 3Nn6	1										
3 3Nc11	1	21									
4 3P6	1	20c, 20c, 5c, 2c, 1c or 20c, 20c, 5c, 1c, 1c, 1c or 20c, 10c, 10c, 5c, 2c, 1c or 20c, 10c, 10c, 5c, 1c, 1c, 1c									
5 3P2	1	14									
6 3D1	2	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Number of spots</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>3 spots</td> <td>6</td> </tr> <tr> <td>5 spots</td> <td>3</td> </tr> <tr> <td>7 spots</td> <td>2</td> </tr> </tbody> </table>	Number of spots	Frequency	3 spots	6	5 spots	3	7 spots	2	1 mark for each table cell completed correctly.
Number of spots	Frequency										
3 spots	6										
5 spots	3										
7 spots	2										
7 3Ss1	1	Shape a	Accept 'a', also accept 'square'								
8a 4Nn9	1	3, -2	Both numbers must be correct to get the mark								
b 6Nn15	1	501, 51, 5.1, 5.01, 0.51	All must be correct to get the mark								
9 3Sp2	1	North									
10 3Sm6	1	One hour and thirty minutes.	Accept 1 hour 30 minutes, one and a half hours, 1 hr 30 mins or 1:30.								
11 4Nn2	1	9762									

Question		Mark	Answer	Additional information
12a	4Nc4	1	446	
b	4Nc4	1	1212	
13	4P5	1 1	The new total is 459. The working must show evidence of $19 + (2 \times 7) + (3 \times 3) = 42$ and $501 - 42 = 459$ The additions can be in any order.	Award 1 mark for evidence of correct process with one calculator error.
14a	5Ss1	1	Yes	
b	5Ss1	1	The explanation must refer to either (i) the angles in a triangle total 180 degrees; a right angle is 90 degrees so two of them add up to 180 degrees, leaving a third angle of 0 degrees which is impossible. (ii) a diagram showing an open shape with three sides and two right angles.  (iii) a description of (ii) in words. It could include that if two lines are both at right angles from a third line, they will never meet (because they are parallel).	
15	4D2	1	3	

Question		Mark	Answer	Additional information
16a	4Ss5	1		Shapes must be drawn accurately with a ruler. Do not accept freehand drawings.
b	4Ss5	1		
17	4Sp2	1	(7, 4)	
18	4Sm4	1	1250	
19a	5Nn14	1	$3\frac{1}{4}$	
b	5Nn14	1	$\frac{2}{6}$ $\frac{3}{9}$	
20	6Nc8	1	39456	
21	5Nc6	1	$(13 \times 3 + 6) \times 2 = 90$	

Question		Mark	Answer	Additional information
22	5P4	1	The answer should include evidence of knowledge that y and x are variables, and that if you multiply x by 3 then add 2, you get y .	
23a	6D1	1		
b	6D1	1	Accept any answer from: <ul style="list-style-type: none"> • even • 0.5 • 50% • $\frac{1}{2}$ • half chance • equally likely 	
24	5Ss1	1	Description should include <ul style="list-style-type: none"> • has two equal angles • has two equal sides 	
25	5Sp5	1	<p>Angle ABC should be accurate to within 1 degree, i.e. within the range 135° to 137°.</p>	
26	5Sm6	1	C 6.4 m	

Question		Mark	Answer	Additional information
27a	5Nn17	1	1.5	
b	5Nn17	1	3.5	Award mark if answer (b) = 5 – answer (a)
28	5Nn16	1	144	
29	5Nc12	1	1950	
30	5P6	1	29.7	

Mathematics

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Units

For questions involving quantities, e.g. length, mass, time or money, correct units must be given in the answer. The table shows acceptable and unacceptable versions of the answer 1.85m.

	Correct answer	Also accept	Do not accept
Units are not given on answer line and question does not specify unit for the answer.	1.85m	Correct conversions provided that the unit is stated, e.g. 1m 85cm 185cm 1850mm 0.00185km	1.85 185m
If the unit is given on the answer line, e.g. .....m	.....1.85..... m	Correct conversions, provided the unit is stated unambiguously, e.g. .....185cm..... m	.....185..... m.....1850.... m etc.
If the question states the unit that the answer should be given in a specified unit, e.g. "Give your answer in metres"	1.85m	1.85 1m 85cm	185; 1850 Any conversions to other units, e.g. 185cm

Note: if the answer line is left blank but the correct answer is given elsewhere on the page it can be marked correct if the units match those on the answer line or are unambiguously stated.

Money

For questions involving money, it is essential that appropriate units are given in the answer.

The table shows acceptable and unacceptable versions.

	Accept	Do not accept
If the amount is in dollars and cents, the answer should be given to two decimal places.	\$0.30 \$9 or \$9.00	\$09 or \$09.00
If units are not given on answer line	Any unambiguous indication of the correct amount, e.g. 30 cents; 30 c \$0.30; \$0.30c; \$0.30cents \$0-30; \$0=30; \$0:30	30 or 0.30 without a unit Incorrect or ambiguous answers, e.g. \$0.3; \$30; \$30cents; 0.30cents
If \$ is shown on the answer line	\$.....0.30..... \$.....0.30 cents.... Accept all unambiguous indications, as shown above	\$.....30..... \$.....30 cents.... (this cannot be accepted because it is ambiguous, but if the dollar sign is deleted it becomes acceptable)
If cents is shown on the answer line	.....30.....cents .....\$0.30.....cents	.....0.30.....cents .....\$30.....cents

Duration

Accept any unambiguous method of showing duration and all reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs).

Accept	Do not accept
Any unambiguous indication using any reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs), e.g. 2 hours 30 minutes; 2h 30m; 02h 30m 5 min 24 sec; 00h 05m 24s	Incorrect or ambiguous formats, e.g. 2.30; 2.3; 2.30 hours; 2.30 min; 2h 3; 2.3h
Any correct conversion with appropriate units, e.g. 2.5 hours; 150 mins 324 seconds	2.5; 150 304
Also accept unambiguous digital stopwatch format, e.g. 02:30:00 00:05:24; 05:24s	Do not accept ambiguous indications, e.g. 02:30 5.24

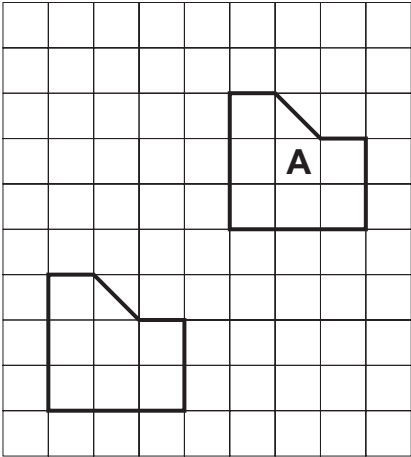
Time

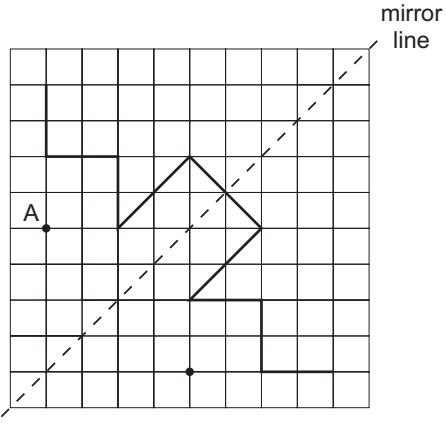
There are many ways to write times, in both numbers and words, and marks should be awarded for any unambiguous method. Accept time written in numbers or words unless there is a specific instruction in the question. Some examples are given in the table.

Accept	Do not accept
Any unambiguous indication of correct answer in numbers, words or a combination of the two, e.g. 07:30, 19:00	Incorrect or ambiguous formats, e.g.
0730; 07 30; 07.30; 07,30; 07-30; 7.30; 730 a.m.; 7.30am; 7.30 in the morning	07.3; 073; 07 3; 730; 73; 7.3; 7.3am; 7.30p.m
Half past seven (o'clock) in the morning Thirty minutes past seven am Also accept: O-seven-thirty	
1900; 19 00; 19_00 etc.	19; 190; 19 000; 19.00am; 7.00am
Nineteen hundred (hours) Seven o'clock in the afternoon/evening	
Accept correct conversion to 12-hour clock, e.g. 16:42 4:42 p.m.	4.42am; 0442; 4.42
Sixteen forty two Four-forty-two in the afternoon/evening Four forty two p.m. Forty two (minutes) past four p.m. Eighteen (minutes) to five in the evening	Forty two (minutes) past sixteen Eighteen (minutes) to seventeen
Also accept a combination of numbers and words, e.g. 18 minutes to 5 p.m. 42 minutes past 4 in the afternoon	

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Question	Mark	Answer	Additional information	
1	3Nn9	1	1757, 2018, 2187, 2508, 2575	
2	3Nn11	1	1000	
3a	3P8	1	3.75	
b	3P8	1	1.05	
4	3P1	1	55	
5	3D1	1	24	
6	3Ss3	1	c	
7	3Sp2	1	W or west	
8	3Sm7	1	2 hours 15 minutes.	Accept 2 and a quarter hours, or the same in figures. Also accept 135 minutes.
9	4Nn16	1	Hundredths	
10a	4Nc6	1	19	
b	4Nc6	1	4	
11a	4P5	1	374.97	
b	4P5	1	37.50	Also accept: the answer to (a) × 10%
12a	4P2	1	14	
b	4P2	1	81	
13a	4D5	1	13	
b	4D5	1	10	
14	4Ss2	1	C	
15	4Sp8	1	20	
16a	4Sm5	1	39	
b	4Sm5	2	78 cm ²	1 mark for 78 1 mark for cm ²

Question	Mark	Answer	Additional information								
17	5Nn15	1	$1\frac{3}{5}, \frac{4}{5}, \frac{5}{10}, \frac{2}{5}, \frac{2}{10}$								
18	5Nn20	2	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Fraction</th> <th>Decimal</th> </tr> </thead> <tbody> <tr> <td>$\frac{1}{5}$</td> <td>0.20</td> </tr> <tr> <td>$\frac{2}{5}$</td> <td>0.40</td> </tr> <tr> <td>$\frac{1}{5}$</td> <td>0.80</td> </tr> </tbody> </table>	Fraction	Decimal	$\frac{1}{5}$	0.20	$\frac{2}{5}$	0.40	$\frac{1}{5}$	0.80
Fraction	Decimal										
$\frac{1}{5}$	0.20										
$\frac{2}{5}$	0.40										
$\frac{1}{5}$	0.80										
19	5Nc13	1	6460								
20a	5P5	1	34								
b	5P5	1	Accept any answer implying the two previous numbers are added to make the next number in the sequence.								
21	5P1	1	8								
22	6D5	1	78								
23	5Ss5	1									
24	5Sp2	1	A								

Question		Mark	Answer	Additional information
25a	6D3	1	23 (accept 24)	
b	6D3	1	32 (accept answers in range 30, 31, 32)	
26	5Ss2	2	 <p>(a) Pattern completed as shown. (b) Point A is positioned at (5, 1)</p>	One mark for each part correctly completed.
27a	5Sp3	1	82	Accept 81 or 83
b	5Sp3	1	133	Accept 132 or 134