

**Cambridge Primary Sample Test**  
**For use with curriculum published in**  
**September 2020**

**Mathematics Paper 1**  
**Mark Scheme**  
Stage 4

## General guidance on marking

### 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.

### 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.

These tables give 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.

### 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. <b>.675</b>
Accept trailing zeros, unless the question has asked for a specific number of decimal places, e.g. <b>0.7000</b>
Accept a comma as a decimal point if that is the convention that you have taught the learners, e.g. <b>0,638</b>

## 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.

	<b>Accept</b>	<b>Do not accept</b>
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
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; \$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.....; \$.....00:30.....	\$.....30.....  Ambiguous answers, e.g. \$.....30 cents.....; \$.....0.30 cents..... <b>unless</b> 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 <b>unless</b> 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.

<b>Accept</b>	<b>Do not accept</b>
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 30m; 02 h 30 m  Any correct conversion with appropriate units, e.g. 2.5 hours; 150 mins <b>unless</b> the question specifically asks for time given in hours and minutes	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, i.e. 18 minutes, of an hour rather than 30 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.

The table shows acceptable and unacceptable versions of the answer 07:30.

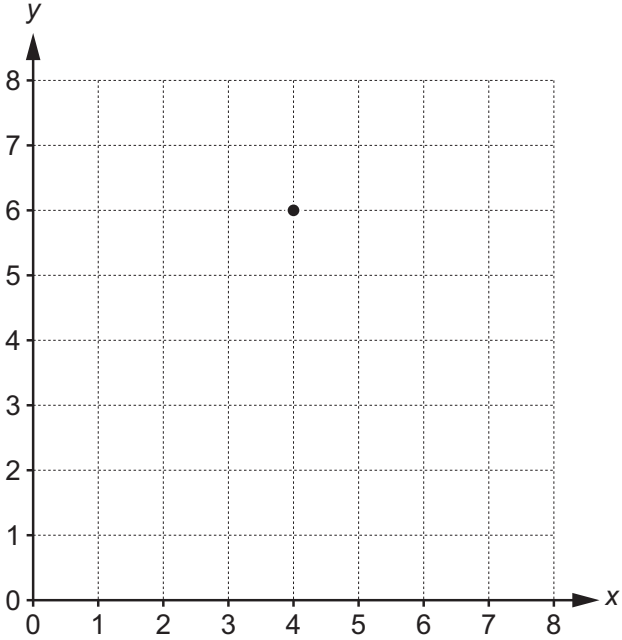
	<b>Accept</b>	<b>Do not accept</b>
If the answer is required in 24-hour format	Any unambiguous indication of correct answer in numbers, words or a combination of the two, e.g.  07:30 with any or no separator in place of the colon, e.g. 07 30; 07,30; 07-30; 0730	7:30 7:30 am 7 h 30 m 7:3 730 7.30 pm 073 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

**Negative numbers**










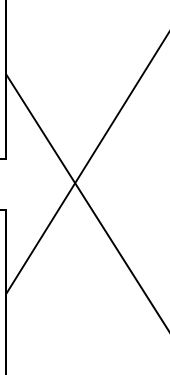
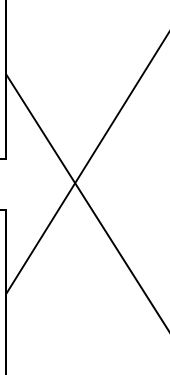
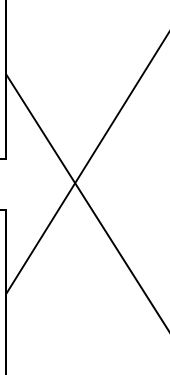
The table shows acceptable and unacceptable versions of the answer  $-2$ .

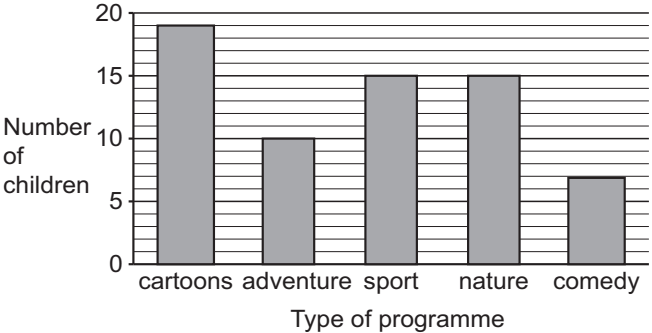
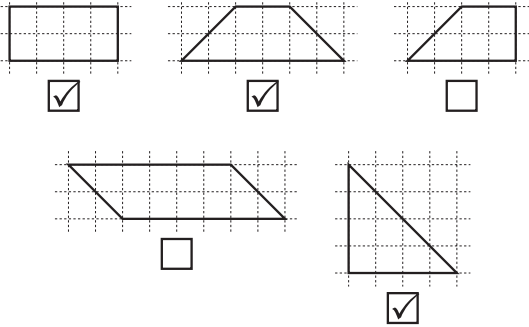
<b>Accept</b>	<b>Do not accept</b>
$-2$	$2-$

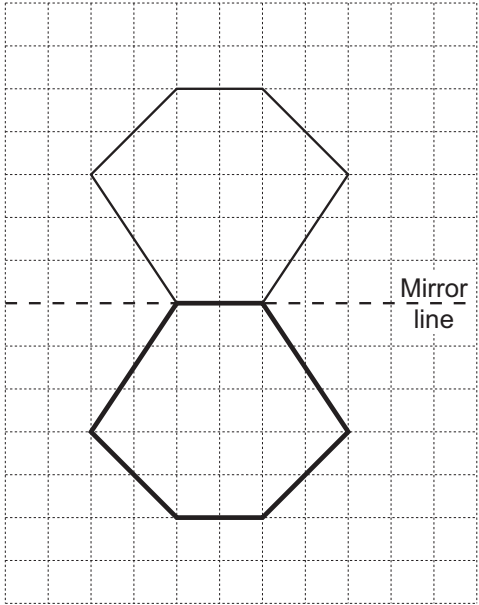
Question	Answer	Mark	Part Marks	Guidance
1	4072	1		
2	<p style="text-align: center;">multiply by 100</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;">43</div> <span style="font-size: 2em; margin-right: 10px;">→</span> <div style="border: 1px solid black; padding: 5px; margin-left: 10px;">4300</div> </div> <p style="text-align: center; margin-top: 10px;">multiply by 10</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;">790</div> <span style="font-size: 2em; margin-right: 10px;">→</span> <div style="border: 1px solid black; padding: 5px; margin-left: 10px;">7900</div> </div>	2	Award 1 mark for <b>one</b> correct answer.	
3	$4 \times 90 = $ <span style="border: 1px solid black; padding: 2px 10px;">360</span> $4 \times $ <span style="border: 1px solid black; padding: 2px 10px;">300</span> $= 1200$	1		Both answers must be correct for 1 mark.
4	Twenty-eight thousand seven hundred and forty-five	1		<p><b>Do not accept</b> any part of number name given as digits.</p> <p><b>Accept</b> numbers written without hyphens.</p> <p><b>Accept</b> recognisable misspellings.</p>
5	<div style="display: flex; justify-content: space-around; align-items: center;"> <span>47 532</span> <span style="border: 1px solid black; border-radius: 50%; padding: 2px 10px;">46 523</span> <span>46 253</span> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> <span>45 732</span> <span style="border: 1px solid black; border-radius: 50%; padding: 2px 10px;">47 325</span> </div>	1		

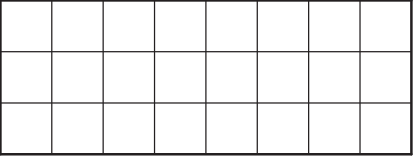
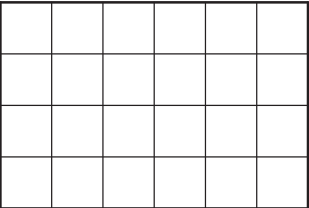
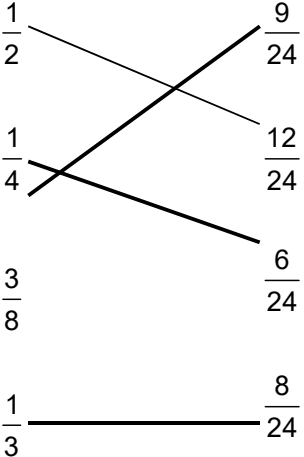
Question	Answer	Marks	Part Marks	Guidance
6		1		<p><b>Accept</b> any clear indication of the correct answer, e.g. dot or cross.</p>
7	<p><b>All</b> the numbers are even. <input type="checkbox"/></p> <p><b>All</b> the numbers are multiples of 10 <input type="checkbox"/></p> <p><b>All</b> the numbers are multiples of 5 <input checked="" type="checkbox"/></p> <p><b>All</b> the numbers have a 5 in the ones place. <input type="checkbox"/></p>	1		



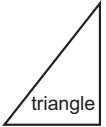

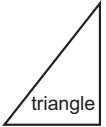

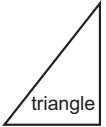

Question	Answer	Mark	Part Marks	Guidance											
8	<p style="text-align: center;">2345 &lt; 2354</p> <p style="text-align: center;">100 hundreds = 10 thousands</p>	1		Both answers must be correct for 1 mark.											
9	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%; text-align: center;">Direction from cross (X)</td> </tr> <tr> <td style="text-align: center;">treasure </td> <td style="text-align: center;">(south)</td> </tr> <tr> <td style="text-align: center;">lighthouse </td> <td style="text-align: center;"><b>east</b></td> </tr> <tr> <td style="text-align: center;">volcano </td> <td style="text-align: center;"><b>southwest</b></td> </tr> </table>		Direction from cross (X)	treasure 	(south)	lighthouse 	<b>east</b>	volcano 	<b>southwest</b>	1		Both boxes must be correct for 1 mark.			
	Direction from cross (X)														
treasure 	(south)														
lighthouse 	<b>east</b>														
volcano 	<b>southwest</b>														
10	15:40	1													
11	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%; border: 1px solid black; padding: 5px;">When Ahmed was 1 year old, he was shorter than he is now.</td> <td rowspan="5" style="width: 10%; text-align: center; vertical-align: middle;">  </td> <td style="width: 20%; border: 1px solid black; padding: 5px;">no chance</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px;"></td> <td style="border: 1px solid black; padding: 5px;">poor chance</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px;"></td> <td style="border: 1px solid black; padding: 5px;">even chance</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px;">In 10 years' time, Ahmed will be younger than he is now.</td> <td style="border: 1px solid black; padding: 5px;">good chance</td> </tr> <tr> <td style="border: 1px solid black; padding: 5px;"></td> <td style="border: 1px solid black; padding: 5px;">certain</td> </tr> </table>	When Ahmed was 1 year old, he was shorter than he is now.		no chance		poor chance		even chance	In 10 years' time, Ahmed will be younger than he is now.	good chance		certain	1		Both answers must be correct for 1 mark.
When Ahmed was 1 year old, he was shorter than he is now.		no chance													
		poor chance													
		even chance													
In 10 years' time, Ahmed will be younger than he is now.		good chance													
		certain													

Question	Answer	Marks	Part Marks	Guidance												
12(a)	7 (children)	1														
12(b)	<p style="text-align: center;"><b>Class A and Class B</b></p>  <table border="1" style="margin-left: auto; margin-right: auto;"> <caption>Data from Bar Chart</caption> <thead> <tr> <th>Type of programme</th> <th>Number of children</th> </tr> </thead> <tbody> <tr> <td>cartoons</td> <td>19</td> </tr> <tr> <td>adventure</td> <td>10</td> </tr> <tr> <td>sport</td> <td>15</td> </tr> <tr> <td>nature</td> <td>15</td> </tr> <tr> <td>comedy</td> <td>7</td> </tr> </tbody> </table>	Type of programme	Number of children	cartoons	19	adventure	10	sport	15	nature	15	comedy	7	1		
Type of programme	Number of children															
cartoons	19															
adventure	10															
sport	15															
nature	15															
comedy	7															
13	31	1														
14		2	<p>Award 1 mark for <b>two</b> correct ticks and <b>none</b> incorrect</p> <p><b>or</b></p> <p>for all <b>three</b> correct and <b>one</b> additional wrong tick.</p>													

Question	Answer	Mark	Part Marks	Guidance
15		1		<p><b>Accept</b> inaccuracies provided the intention is clear.</p>
16	<p> <del>5 × 4 × 10</del>      <del>10 × 15</del>  <del>5 × 3 × 4</del>      <del>12 × 6</del>  <del>5 × 10 × 3</del>      <del>20 × 10</del>  <del>4 × 3 × 6</del>      <del>20 × 6</del>  <del>6 × 4 × 5</del>      <del>12 × 5</del> </p>	2	<p>Award 1 mark for <b>two</b> or <b>three</b> lines correct.</p>	<p>Award 2 marks for all <b>four</b> lines correct.</p>

Question	Answer	Mark	Part Marks	Guidance
17	 <p>or</p> 	1		<p>Award 1 mark for a rectangle of <math>8 \times 3</math> or <math>6 \times 4</math></p> <p><b>Accept</b> in either orientation.</p>
18		1		<p>All <b>three</b> lines must be correct for 1 mark.</p>

Question	Answer	Marks	Part Marks	Guidance												
19	176, 671, 716, 761	2	Award 1 mark for <b>three</b> answers correct with none wrong <b>or</b> for all <b>four</b> correct answers and <b>one</b> additional wrong answer.	<b>Accept</b> answers in any order.												
20	<table border="1"> <tbody> <tr> <td>x</td> <td>3</td> <td>9</td> <td>7</td> </tr> <tr> <td>2</td> <td>6</td> <td>18</td> <td>14</td> </tr> <tr> <td>9</td> <td>27</td> <td>81</td> <td>63</td> </tr> </tbody> </table>	x	3	9	7	2	6	18	14	9	27	81	63	1		All boxes must be correct for 1 mark.
x	3	9	7													
2	6	18	14													
9	27	81	63													
21	13, 14, 15, 16 or 17	1														
22	<table border="1"> <thead> <tr> <th>Days of the week</th> <th>Temperature</th> </tr> </thead> <tbody> <tr> <td>Monday</td> <td>37°C</td> </tr> <tr> <td>Tuesday</td> <td>32°C</td> </tr> <tr> <td>Wednesday</td> <td>19°C</td> </tr> <tr> <td>Thursday</td> <td>32°C</td> </tr> <tr> <td>Friday</td> <td>(24°C)</td> </tr> </tbody> </table>	Days of the week	Temperature	Monday	37°C	Tuesday	32°C	Wednesday	19°C	Thursday	32°C	Friday	(24°C)	2	Award 1 mark for <b>two</b> or <b>three</b> correct temperatures.	All <b>four</b> temperatures correct for 2 marks.
Days of the week	Temperature															
Monday	37°C															
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Wednesday	19°C															
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Friday	(24°C)															

Question	Answer			Marks	Part Marks	Guidance									
23	<table border="1" style="width: 100%; text-align: center;"> <tr> <td></td> <td><b>D</b></td> <td><b>F</b></td> </tr> <tr> <td><b>A</b></td> <td> <div style="border: 1px solid black; width: 40px; height: 40px; margin: auto; display: flex; align-items: center; justify-content: center;">square</div> </td> <td> <div style="border: 1px solid black; width: 60px; height: 40px; margin: auto; display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; width: 40px; height: 20px; margin-right: 10px; display: flex; align-items: center; justify-content: center;">rectangle</div>  </div> </td> </tr> <tr> <td><b>E</b></td> <td> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">circle</div> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">hexagon</div> </div> </td> <td> <div style="border: 1px solid black; width: 60px; height: 40px; margin: auto; display: flex; align-items: center; justify-content: center;">  </div> </td> </tr> </table>				<b>D</b>	<b>F</b>	<b>A</b>	<div style="border: 1px solid black; width: 40px; height: 40px; margin: auto; display: flex; align-items: center; justify-content: center;">square</div>	<div style="border: 1px solid black; width: 60px; height: 40px; margin: auto; display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; width: 40px; height: 20px; margin-right: 10px; display: flex; align-items: center; justify-content: center;">rectangle</div>  </div>	<b>E</b>	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">circle</div> <div style="border: 1px solid black; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center;">hexagon</div> </div>	<div style="border: 1px solid black; width: 60px; height: 40px; margin: auto; display: flex; align-items: center; justify-content: center;">  </div>	<b>2</b>	Award 1 mark for <b>two or three</b> correct labels.	Award 2 marks for all <b>four</b> labels correct.  <b>Accept</b> headings written in full.
	<b>D</b>	<b>F</b>													
<b>A</b>	<div style="border: 1px solid black; width: 40px; height: 40px; margin: auto; display: flex; align-items: center; justify-content: center;">square</div>	<div style="border: 1px solid black; width: 60px; height: 40px; margin: auto; display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; width: 40px; height: 20px; margin-right: 10px; display: flex; align-items: center; justify-content: center;">rectangle</div>  </div>													
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