

Cambridge Primary Sample Test
For use with curriculum published in
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Mathematics Paper 2
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. .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..... m1850..... 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 |
| 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..... 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.\$30cents;\$0.30cents 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 |
|---|--|
| <p>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</p> <p>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</p> | <p>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)</p> <p>02:30 (as this is a 24-hour clock time, not a time interval)</p> <p>2.5; 150</p> |

Time

The table below gives guidance for answers involving time.

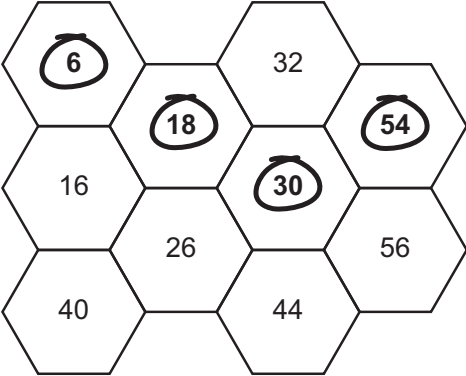
The table shows acceptable and unacceptable versions of the answer 07:30.

| | 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 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

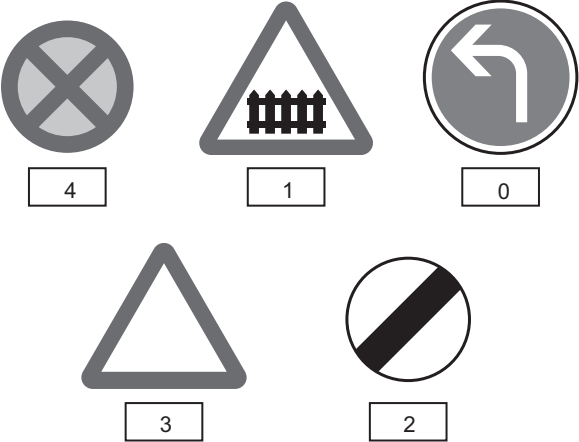
The table shows acceptable and unacceptable versions of the answer -2 .

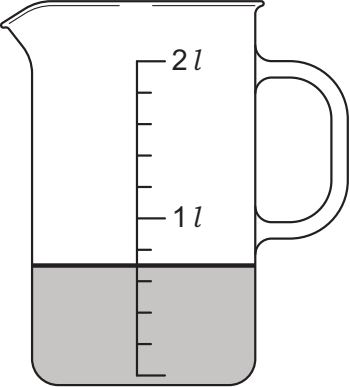
| Accept | Do not accept |
|---------------|----------------------|
| -2 | 2- |

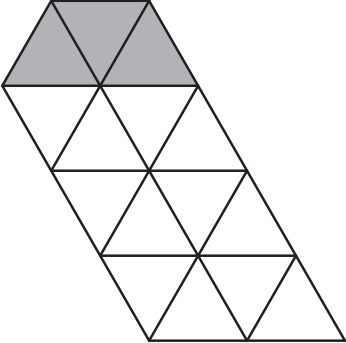
| Question | Answer | Mark | Part Marks | Guidance |
|----------|---|------|------------|---|
| 1 | 6000 or 6 thousands | 1 | | |
| 2 |  | 1 | | All four numbers correctly circled for 1 mark. |
| 3(a) | 51 and 42 | 1 | | Both answers must be correct for 1 mark. Accept answer written on the sequence. |
| 3(b) | subtract 9 | 1 | | Accept an equivalent statement. |

| Question | Answer | Mark | Part Marks | Guidance |
|----------|--------|------|--|--|
| 4 | | 2 | Award 1 mark for two or three lines correct. | Award 2 marks for all four lines correct. |

| Question | Answer | Mark | Part Marks | Guidance | | | | | | | | | | | | |
|------------------------------------|--|------------|-------------|--|------------------------------------|---|--|-----------------------------------|--|---|----------------------------------|---|--|---|--|--|
| 5 | <table border="1"> <thead> <tr> <th></th> <th>Even answer</th> <th>Odd answer</th> </tr> </thead> <tbody> <tr> <td>An even number plus an even number</td> <td>✓</td> <td></td> </tr> <tr> <td>An even number plus an odd number</td> <td></td> <td>✓</td> </tr> <tr> <td>An odd number plus an odd number</td> <td>✓</td> <td></td> </tr> </tbody> </table> | | Even answer | Odd answer | An even number plus an even number | ✓ | | An even number plus an odd number | | ✓ | An odd number plus an odd number | ✓ | | 1 | | Award 1 mark for all three boxes correct. |
| | Even answer | Odd answer | | | | | | | | | | | | | | |
| An even number plus an even number | ✓ | | | | | | | | | | | | | | | |
| An even number plus an odd number | | ✓ | | | | | | | | | | | | | | |
| An odd number plus an odd number | ✓ | | | | | | | | | | | | | | | |
| 6 | <p>An answer that recognises that there is 1 half stick man so the total must be odd e.g.</p> <ul style="list-style-type: none"> • There is only one half a stick man. • It's six even numbers plus an odd number. • It's an even number every day except Thursday. • It's only odd on Thursday. | 1 | | | | | | | | | | | | | | |
| 7 | | 1 | | All three lines correct for 1 mark. | | | | | | | | | | | | |

| Question | Answer | Mark | Part Marks | Guidance |
|----------|---|------|---|--|
| 8 |  <p>4 1 0</p> <p>3 2</p> | 2 | Award 1 mark for three or four correct. | Award 2 marks for all five correct. Do not accept blank box for 0 |
| 9 | $\frac{\boxed{1}}{5} + \frac{3}{5} + \frac{\boxed{2}}{5} = \frac{6}{5}$ <p>or</p> $\frac{\boxed{2}}{5} + \frac{3}{5} + \frac{\boxed{1}}{5} = \frac{6}{5}$ | 1 | | |
| 10(a) | 25 (minutes) | 1 | | |
| 10(b) | 47 (minutes) | 1 | | |
| 11 | 93 (pages) | 1 | | |

| Question | Answer | Mark | Part Marks | Guidance |
|----------|---|------|------------|---|
| 12 |  | 1 | | Accept lines that are closer to 700 ml than to 600ml or 800ml. |
| 13 | <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">600 seconds</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">1 hour</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">1 hour 10 minutes</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">100 minutes</div> </div> <p style="text-align: center; margin-top: 10px;">shortest longest</p> | 1 | | Accept equivalent times. Accept 600, 1, 1h 10, 100 |
| 14 | <div style="display: flex; justify-content: space-around; align-items: center; margin-bottom: 20px;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">$\frac{1}{4}$ 50%</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">25% $\frac{1}{2}$</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">50% $\frac{3}{4}$</div> </div> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">75% $\frac{3}{4}$</div> <div style="border: 1px solid black; border-radius: 50%; padding: 5px; text-align: center;">25% $\frac{3}{4}$</div> </div> | 1 | | Accept any clear indication. |

| Question | Answer | Mark | Part Marks | Guidance |
|----------|---|------|------------|---|
| 15 |  | 1 | | Award 1 mark for any three triangles shaded. |
| 16 | 56 (cm) | 1 | | |

| Question | Answer | Mark | Part Marks | Guidance |
|----------|---|------|--|--|
| 17 | (\$) 16 | 2 | Award 1 mark for sight of 4 (dollars) or for full method with arithmetic errors: $20 - (12 \div 3) = \text{wrong answer.}$ | |
| 18(a) | 3 (children) | 1 | | Accept Ahmed, Naomi and Gabriella. |
| 18(b) | Any one from: Eva, Jamila, Yuri, Mike | 1 | | Accept more than one correct name. |
| 19 | $\begin{array}{ c c } \hline 2 & 1 \\ \hline \end{array} \div \begin{array}{ c } \hline 3 \\ \hline \end{array} = \begin{array}{ c } \hline 7 \\ \hline \end{array}$ $\begin{array}{ c c } \hline 5 & 4 \\ \hline \end{array} \div \begin{array}{ c } \hline 6 \\ \hline \end{array} = \begin{array}{ c } \hline 9 \\ \hline \end{array}$ | 2 | Award 1 mark for one correct calculation. | Award 2 marks for both calculations correct. |
| 20 | 2 elephants and 1 lion | 1 | | Accept answer in either order. Accept similar animals. |
| 21 | Explanation that recognises that there will always be an odd number of sticks. e.g. There will always be an odd number of sticks. or There will be 21 sticks. or If I keep adding 2 I won't get to 20. | 1 | | Do not accept '20 is an even number' on its own. Accept number of sticks = diagram $\times 2 + 1$ Do not accept 'it's going up in 2s' on its own. |

| Question | Answer | Mark | Part Marks | Guidance |
|----------|---|----------|--|--------------------------------------|
| 22 | <p>A and B both have the same number of faces.</p> <p>A and C both have the same number of vertices.</p> <p>B and C are both prisms.</p> | 2 | Award 1 mark for two correct answers. | All three needed for 2 marks. |