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KEY STAGE

2

LEVELS

3-5

2004

Mathematics tests

Mark schemes

Test A, test B and mental mathematics test

2004

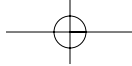
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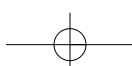
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Marking the mathematics tests

As in 2003, external markers, employed by the external marking agencies under contract to QCA, will mark the test papers. The markers will follow the mark schemes in this booklet, which is supplied to teachers for information.

This booklet contains the mark schemes for the levels 3–5 tests A, B and mental mathematics. Level threshold tables will be available on the QCA website on 21 June 2004 (www.qca.org.uk/).

General guidance

The structure of the mark schemes

The marking information for each question is set out in the form of tables, which start on page 6 of this booklet. The ‘question’ column on the left-hand side of each table provides a quick reference to the question number and the question part. The ‘mark’ column indicates the total number of marks available for each question part. On some occasions, the symbol (U1) or (U2) may be shown in the mark column. The ‘U’ indicates that there is a ‘Using and Applying Mathematics’ element in the question. The number, 1 or 2, shows the number of marks attributed to using and applying mathematics in the question.

The ‘requirement’ column may include two types of information:

- a statement of the requirements for the award of each mark, with an indication of whether credit can be given for correct working;
- examples of some different types of correct response.

The ‘additional guidance’ column indicates alternative acceptable responses, and provides details of specific types of response which are unacceptable. Other guidance, such as the range of acceptable answers, is provided as necessary.

Additionally, for the mental mathematics test, general guidance on marking is given on page 16, together with a ‘quick reference’ mark scheme.

Applying the mark schemes

In order to ensure consistency of marking, the most frequent procedural queries are listed on pages 2 and 3 with the action the marker will take. This is followed by further guidance on pages 4 and 5 relating to the marking of questions that involve money, time and other measures. Unless otherwise specified in the mark scheme, markers will apply the following guidelines in all cases.

| What if ...? | Marking procedure | |
|---|---|---|
| The child's response is numerically or algebraically equivalent to the answer in the mark scheme. | Markers will award the mark unless the mark scheme states otherwise. | |
| The child's response does not match closely any of the examples given. | Markers will use their judgement in deciding whether the response corresponds with the statement of the requirements given in the 'requirement' column. Reference will also be made to the additional guidance and, if there is still uncertainty, markers will contact the supervising marker. | |
| The child has responded in a non-standard way. | Calculations, formulae and written responses do not have to be set out in any particular format. Children may provide evidence in any form as long as its meaning can be understood. Diagrams, symbols or words are acceptable for explanations or for indicating a response. Any correct method of setting out working, however idiosyncratic, will be accepted. | |
| There appears to be a misreading affecting the working. | This is when the child misreads the information given in the question and uses different information without altering the original intention or difficulty level of the question. For each misread that occurs, one mark only will be deducted. In one-mark questions – 0 marks are awarded. In two-mark questions that have a method mark – 1 mark will be awarded if the correct method is correctly implemented with the misread number(s). | |
| No answer is given in the expected place, but the correct answer is given elsewhere. | Where a child has shown understanding of the question, the mark(s) will be given. In particular, where a word or number response is expected, a child may meet the requirement by annotating a graph or labelling a diagram elsewhere in the question. | |
| The response in the answer box is wrong, but the correct answer is shown in the working. | Where appropriate, detailed guidance will be given in the mark scheme, which markers will follow. If no guidance is given, markers will examine each case to decide whether: the incorrect answer is due to a transcription error; the child has continued to give redundant extra working which does not contradict work already done; the child has continued to give redundant extra working which does contradict work already done. | If so, the mark will be awarded. If so, the mark will be awarded. If so, the mark will not be awarded. |

| What if ...? | Marking procedure |
|---|---|
| The child's answer is correct but the wrong working is shown. | A correct response will always be marked as correct. |
| The correct response has been crossed out and not replaced. | Any legible crossed-out work that has not been replaced will be marked according to the mark scheme. If the work is replaced, then crossed-out work will not be considered. |
| More than one answer is given. | If all answers are correct (or a range of answers is given, all of which are correct), the mark will be awarded unless prohibited by the mark scheme. If both correct and incorrect responses are given, no mark will be awarded. |
| The answer is correct but, in a later part of the question, the child has contradicted this response. | A mark given for one part will not be disallowed for working or answers given in a different part, unless the mark scheme specifically states otherwise. |

Recording marks awarded on the test paper

In the shaded margin there is a mark box for each question part. For the written tests, the number of marks gained on each double page will be written in the total box at the bottom of the right-hand page. For all the tests, the total number of marks gained on each paper will be recorded on the front of the test paper, and on the mark sheet.

All questions in the tests, even those not attempted by the child, will be marked with a '1' or '0' entered in the mark box.

A two-mark question which is correct has '1' entered in both mark boxes.

A two-mark question which is incorrect, but which has sufficient evidence of working or method as required by the mark scheme, will have '1' entered in the first mark box and '0' in the second. Otherwise '0' will be entered in both mark boxes.

Test A carries a total of 40 marks. Test B also carries a total of 40 marks. The mental mathematics test carries a total of 20 marks.

The 2004 key stage 2 mathematics tests and mark schemes were developed by the Mathematics Test Development Team at QCA.

Marking specific types of question – summary of additional guidance

Responses involving money

| Accept | Do not accept |
|--|---|
| <p>Where the £ sign is given, for example: £3.20, £7</p> <div style="border: 1px solid black; width: 150px; height: 40px; margin: 10px auto; text-align: center; font-size: 24px; font-weight: bold;">£</div> <p>£3.20 £7 £7.00</p> <p>Any unambiguous indication of the correct amount, eg £3.20p £3 20 pence £3 20 £3,20 £3-20 £3:20 £3·20</p> | <div style="border: 1px solid black; width: 150px; height: 40px; margin: 10px auto; text-align: center; font-size: 24px; font-weight: bold;">£</div> <p>Incorrect or ambiguous use of pounds or pence, eg £320 £320p</p> <p>Incorrect placement of decimal point or incorrect use or omission of 0, eg £3.2 £3 200 £32 0 £3-2-0</p> |
| <p>Where the p sign is given, for example: 40p</p> <div style="border: 1px solid black; width: 150px; height: 40px; margin: 10px auto; text-align: center; font-size: 24px; font-weight: bold;">p</div> <p>40p</p> <p>Any unambiguous indication of the correct amount, eg £0.40p</p> | <div style="border: 1px solid black; width: 150px; height: 40px; margin: 10px auto; text-align: center; font-size: 24px; font-weight: bold;">p</div> <p>Incorrect or ambiguous use of pounds or pence, eg 0.40p £40p</p> |
| <p>Where no sign is given, for example: £3.20, 40p</p> <div style="border: 1px solid black; width: 150px; height: 40px; margin: 10px auto;"></div> <p>£3.20 40p 320p £0.40p</p> <p>Any unambiguous indication of the correct amount, eg £3.20p £0.40p £3 20 pence £. 40p £3 20 40 £3,20 0.40 £3-20 £.40 £3:20 3.20 320 3 pounds 20</p> | <div style="border: 1px solid black; width: 150px; height: 40px; margin: 10px auto;"></div> <p>Incorrect or ambiguous use of pounds or pence, eg £320 £40 £320p £40p £3.2 0.4 3.20p</p> |

Responses involving time**Accept****A time interval, for example: 2 hours 30 minutes**

2 hours 30 minutes

Any unambiguous indication, eg

2½ hours

2.5 hours

2h 30

2h 30 min

Digital electronic time, ie

2:30

A specific time, for example: 8:40am, 17:20

8:40am

8:40

twenty to nine

Any unambiguous, correct indication, eg

08.40

8.40

0840

8 40

8-40

8,40

Unambiguous change to 12 or 24 hour clock, eg

17:20 as 5:20pm or 17:20pm

Do not accept

An incorrect or ambiguous time interval, eg

2.30

2-30

2,30

2.3

2.3 hours

2.3h

2h 3

2.30 min

Incorrect time, eg

8.4am

8.40pm

Incorrect placement of separators, spaces etc or incorrect use or omission of 0, eg

840

8:4:0

8.4

084

84

Responses involving measures**Accept****Where units are given
(eg kg, m, l),
for example: 8.6kg****kg**

8.6kg

Any unambiguous indication of the correct measurement, eg

8.60kg

8.6000kg

8kg 600g

Do not accept**kg**

Incorrect or ambiguous use of units, eg

8600kg

Note

If a child leaves the answer box empty but writes the answer elsewhere on the page, then that answer must be consistent with the units given in the answer box and the conditions listed above.

If a child changes the unit given in the answer box, then their answer must be equivalent to the correct answer using the unit they have chosen, unless otherwise indicated in the mark scheme.

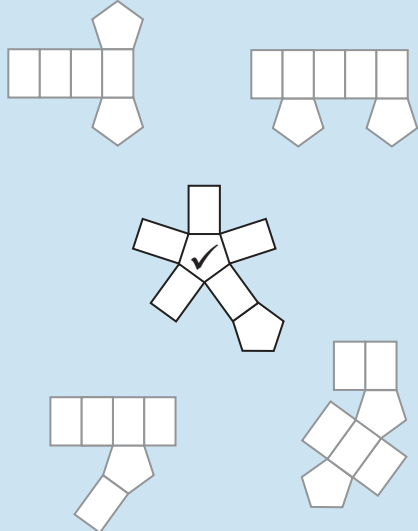
Test A questions 1–6

| Question | Requirement | Mark | Additional guidance |
|-----------|---|-----------------|--|
| 1a | 115 | 1m | |
| 1b | 30 | 1m | |
| 1c | 69 | 1m | |
| 2 | $\frac{1}{4}$ OR $\frac{2}{8}$ | 1m | Accept equivalent fractions. |
| 3a | £2.45 OR 245p | 1m | |
| 3b | juice and apple OR milk and melon | 1m | Accept recognisable misspellings. Accept items written in either order. Accept numerical substitutes for the required pairing, ie 65p and 15p OR 55p and 25p |
| 4 | Answer in the range 8.4 to 8.6cm inclusive. | 1m | Accept $8\frac{1}{2}$ cm |
| 5 | Award TWO marks for all three calculations completed correctly as shown: $5 \times \boxed{4}$ $12 \div \boxed{3}$ $9 + \boxed{5}$ If the answer is incorrect, award ONE mark for two calculations completed correctly, eg $5 \times \boxed{4}$ $12 \div \boxed{5}$ $9 + \boxed{3}$ | Up to 2m | Answers to the calculations are not required for the award of the mark. Accept for ONE mark 4, 3, * OR 4, *, 5 OR 4, *, 3 OR *, 3, 5 where * is any number or blank. |
| 6a | 15 | 1m | |
| 6b | 25 | 1m | |

Test A questions 7–12

| Question | Requirement | Mark | Additional guidance | | | | | | | | | |
|---------------------|---|---|---|----------|-----------------|---|---|---------------------|---|--|-----------------|--|
| 7 | <p>Award TWO marks for the correct answers of A AND E.</p> <p>If the answer is incorrect, award ONE mark for:</p> <ul style="list-style-type: none"> only one answer correct <p>OR</p> <ul style="list-style-type: none"> two answers correct and one incorrect. | Up to 2m | <p>Answers may be given in either order.</p> <p>Accept unambiguous indications on the diagram.</p> | | | | | | | | | |
| 8 | 10.8 | 1m | | | | | | | | | | |
| 9a | 5 | 1m | Do not accept a list of months. | | | | | | | | | |
| 9b | Answer in the range 6 degrees to 7.5 degrees inclusive. | 1m | | | | | | | | | | |
| 10a | £2.86 | 1m | <p>Accept for ONE mark £202p OR £202 OR 2.02p as evidence of appropriate working.</p> <p>Calculation must be performed for the award of ONE mark.</p> | | | | | | | | | |
| 10b | <p>Award TWO marks for the correct answer of £2.02 OR 202p</p> <p>If the answer is incorrect, award ONE mark for evidence of appropriate working, eg</p> <p>$4.69 + 3.29 = 7.98$</p> <p>$10 - 7.98 = \text{wrong answer}$</p> | Up to 2m | | | | | | | | | | |
| 11 | 9:20 | 1m | The answer is a specific time (see page 5 for guidance). | | | | | | | | | |
| 12 | <p>Award TWO marks for a correct number written in each of the four boxes.</p> <table border="1" data-bbox="406 1572 861 1832"> <thead> <tr> <th></th> <th>even</th> <th>not even</th> </tr> </thead> <tbody> <tr> <th>a square number</th> <td>0 OR 4 OR 16 OR 36 OR 64</td> <td>1 OR 9 OR 25 OR 49 OR 81</td> </tr> <tr> <th>not a square number</th> <td>even AND not square AND less than 100</td> <td>odd AND not square AND less than 100</td> </tr> </tbody> </table> <p>If the answer is incorrect, award ONE mark for three boxes completed correctly.</p> | | even | not even | a square number | 0 OR 4 OR 16 OR 36 OR 64 | 1 OR 9 OR 25 OR 49 OR 81 | not a square number | even AND not square AND less than 100 | odd AND not square AND less than 100 | Up to 2m | Accept more than one number in each box, provided all are correct. |
| | even | not even | | | | | | | | | | |
| a square number | 0 OR 4 OR 16 OR 36 OR 64 | 1 OR 9 OR 25 OR 49 OR 81 | | | | | | | | | | |
| not a square number | even AND not square AND less than 100 | odd AND not square AND less than 100 | | | | | | | | | | |

Test A questions 13–18

| Question | Requirement | Mark | Additional guidance | | | | | | | | | | | | | | | | |
|----------|---|-----------------|--|---|---|---|----|----|----|---|----|----|----|---|----|----|----|---------------------------|--|
| 13 | <p>One net ticked as shown:</p>  | 1m | Accept alternative unambiguous indications of the correct shape, provided the intention is clear, eg net circled. | | | | | | | | | | | | | | | | |
| 14 | <p>Award TWO marks for all four boxes completed correctly as shown:</p> <table border="1" data-bbox="395 1102 631 1334"> <tr> <td>x</td> <td>5</td> <td>9</td> <td>8</td> </tr> <tr> <td>4</td> <td>20</td> <td>36</td> <td>32</td> </tr> <tr> <td>7</td> <td>35</td> <td>63</td> <td>56</td> </tr> <tr> <td>6</td> <td>30</td> <td>54</td> <td>48</td> </tr> </table> <p>If the answer is incorrect, award ONE mark for three boxes completed correctly.</p> | x | 5 | 9 | 8 | 4 | 20 | 36 | 32 | 7 | 35 | 63 | 56 | 6 | 30 | 54 | 48 | <p>Up to 2m</p> <p>U1</p> | |
| x | 5 | 9 | 8 | | | | | | | | | | | | | | | | |
| 4 | 20 | 36 | 32 | | | | | | | | | | | | | | | | |
| 7 | 35 | 63 | 56 | | | | | | | | | | | | | | | | |
| 6 | 30 | 54 | 48 | | | | | | | | | | | | | | | | |
| 15 | 90 | 1m | | | | | | | | | | | | | | | | | |
| 16 | 360 | 1m | | | | | | | | | | | | | | | | | |
| 17 | 221.2 | 1m | | | | | | | | | | | | | | | | | |
| 18 | <p>Award TWO marks for the correct answer of 21</p> <p>If the answer is incorrect, award ONE mark for evidence of appropriate working, eg</p> <p>$5 + 2 = 7$ $15 \div 5 \times 7$</p> <p>OR</p> <p>5 new 2 old 10 new 4 old 15 new 6 old</p> | <p>Up to 2m</p> | <p>Award ONE mark for an answer of 6 OR for 6 shown with no evidence of an incorrect method.</p> <p>Answer need not be given for the award of ONE mark.</p> | | | | | | | | | | | | | | | | |

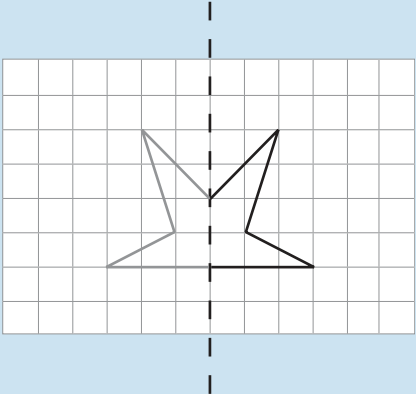
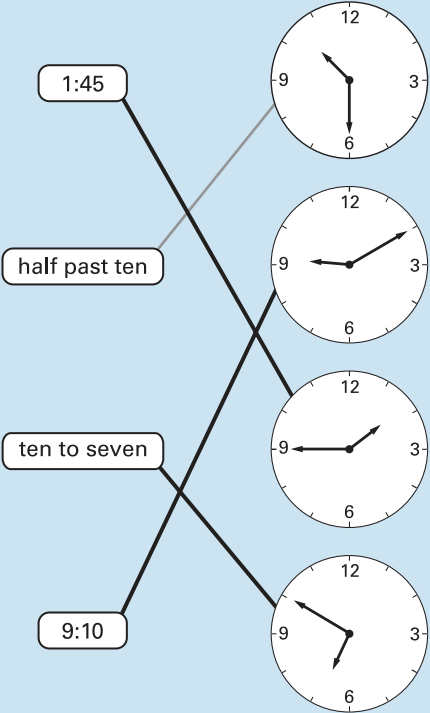
Test A questions 19–22

| Question | Requirement | Mark | Additional guidance |
|----------|---|----------------------------------|--|
| 19 | <p>An explanation which recognises that the sum of adding three odd numbers is always odd, eg</p> <ul style="list-style-type: none"> ■ 'Because odd + odd + odd = odd'; ■ 'Because three odd numbers can't add up to an even number'; ■ 'Because an odd number of odd numbers makes an odd number'. | <p>1m</p> <p>U1</p> | <p>Do not accept numerical exemplification without further explanation, eg</p> <ul style="list-style-type: none"> ■ 'Because $21 + 23 + 7 = 51$'; ■ 'Because $21 + 23 + 6 = 50$'. <p>Do not accept vague or arbitrary explanations, eg</p> <ul style="list-style-type: none"> ■ 'Because 50 is even'; ■ 'Because you can only do it with two odd numbers'. |
| 20 | (5, 2) | 1m | <p>Coordinates must be in the correct order.</p> <p>Accept unambiguous answers written on the diagram.</p> |
| 21 | 5 | 1m | |
| 22 | <p>Award TWO marks for the correct answer of 15</p> <p>If the answer is incorrect, award ONE mark for evidence of appropriate working, eg</p> <ul style="list-style-type: none"> ■ $60 \div 4 =$ wrong answer <p>OR</p> <ul style="list-style-type: none"> ■ a 'trial and improvement' method, eg <ul style="list-style-type: none"> $30 \times 5 - 60 = 90$ $10 \times 5 - 60 = -10$ $20 \times 5 - 60 = 40$ <p>OR</p> <ul style="list-style-type: none"> ■ $5x - 60 = x$ $x =$ wrong answer | <p>Up to 2m</p> <p>U1</p> | <p>Calculation must be performed for the award of ONE mark.</p> <p>A 'trial and improvement' method must show evidence of improvement, but a final answer need not be reached for the award of ONE mark.</p> |

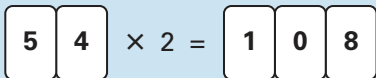
Test A questions 23–25

| Question | Requirement | Mark | Additional guidance |
|------------|---|----------------------------------|--|
| 23a | 3 hours 35 minutes | 1m | <i>The answer is a time interval (see page 5 for guidance).</i> |
| 23b | 15:15 | 1m | <i>The answer is a specific time (see page 5 for guidance). Accept quarter past three.</i> |
| 24 | £180 | 1m | Do not accept 180%. |
| 25 | <p>Award TWO marks for the correct answer of 64</p> <p>If the answer is incorrect, award ONE mark for evidence of appropriate working, eg</p> <p>$48 \div 3 = 16$</p> <p>$16 \times 4 =$ wrong answer</p> | <p>Up to 2m</p> <p>⓪1</p> | <i>Calculation must be performed for the award of ONE mark.</i> |

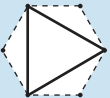

Test B questions 1–3

| Question | Requirement | Mark | Additional guidance |
|-----------------|--|------------------|--|
| <p>1</p> | <p>One number circled as shown:</p> <p>750 72 651 69 770</p> | <p>1m</p> | <p>Do not award the mark if additional incorrect numbers are circled.</p> <p>Accept alternative unambiguous indications, eg ticks, numbers crossed out or underlined.</p> |
| <p>2</p> | <p>Diagram completed correctly as shown:</p>  | <p>1m</p> | <p>Accept slight inaccuracies in drawing, provided the intention is clear.</p> |
| <p>3</p> | <p>Diagram completed correctly as shown:</p>  | <p>1m</p> | <p>Lines need not touch the clocks, provided the intention is clear.</p> <p>Do not accept times which have been matched to more than one clock.</p> |

Test B questions 4–9

| Question | Requirement | Mark | Additional guidance |
|----------|---|---------------------------|--|
| 4a | 2 | 1m | Accept 100m AND relay. |
| 4b | Blue | 1m | Accept B or recognisable misspellings. |
| 5a | 8 | 1m | |
| 5b | 80 | 1m | |
| 6 | An explanation which recognises that a multiple of 5 can end in 0 as well as 5, eg <ul style="list-style-type: none"> ■ 'Because 10 is a multiple of 5'; ■ 'Because it can end in 0'; ■ 'Because some numbers end in 0'. | 1m U1 | No mark is awarded for circling 'No' alone. Do not accept vague or arbitrary answers, eg <ul style="list-style-type: none"> ■ 'Because not all multiples of 5 end in 5'. If 'Yes' is circled but a correct, unambiguous explanation is given, then award the mark. |
| 7 | Calculation completed correctly as shown:  | 1m U1 | |
| 8 | A AND F | 1m | Answers may be given in either order. Accept alternative indications, eg shapes ticked or circled, provided the intention is clear. |
| 9a | £14.60 | 1m | Do not accept £14.6 |
| 9b | Award TWO marks for the correct answer of £4.45 If the answer is incorrect, award ONE mark for evidence of appropriate method, eg 1.95 + 1.25 + 1.25 | Up to 2m | Accept for ONE mark £445 OR £445p as evidence of an appropriate method. Accept for ONE mark £8.10 OR £19.05 OR the correct total of £4.45 and the answer given for 9a as evidence of an appropriate method. Answer need not be obtained for the award of ONE mark. |

Test B questions 10–13

| Question | Requirement | Mark | Additional guidance |
|------------|---|-----------------|--|
| 10a | 2002 | 1m | |
| 10b | 2000 | 1m | |
| 11 | <p>Award TWO marks for the correct answer of 384</p> <p>If the answer is incorrect, award ONE mark for evidence of appropriate method, eg</p> $7 + 5 + 4 = 16$ 16×24 <p>OR</p> $\begin{array}{r} 7 \times 24 \\ 5 \times 24 \\ + 4 \times 24 \\ \hline \end{array}$ | Up to 2m | <i>Answer need not be obtained for the award of ONE mark.</i> |
| 12a | <p>Triangle drawn in any orientation as shown:</p>  | 1m | <i>Accept slight inaccuracies in drawing, provided the intention is clear.</i> |
| 12b | <p>Triangle drawn in any orientation as shown:</p>  | 1m | |
| 13a | £200 | 1m | |
| 13b | <p>Award TWO marks for the correct answer of 37p OR £0.37</p> <p>OR</p> <p>for finding the correct difference between £199.63 and the answer given for 13a.</p> <p>If the answer is incorrect, award ONE mark for evidence of appropriate method, eg</p> $74.68 + 65.90 + 59.05 = 199.63$ $200 - 199.63$ <p>OR</p> <p>for evidence of an appropriate method to find the correct difference between £199.63 and the answer given for 13a.</p> | Up to 2m | <p><i>Answer to 13a must be a multiple of £10 for the award of TWO follow-through marks.</i></p> <p><i>Answer need not be obtained for the award of ONE mark.</i></p> <p><i>Accept for ONE mark £37p OR 0.37p OR £37 as evidence of appropriate method.</i></p> |

Test B questions 14–20

| Question | Requirement | Mark | Additional guidance |
|----------|--|----------|---|
| 14 | $\boxed{3} \boxed{2} \times \boxed{4}$ | 1m U1 | |
| 15a | 4.4 | 1m | |
| 15b | 1.2 OR for finding the correct difference between 5.6 and the answer given for 15a | 1m | |
| 16a | Answer in the range 46m to 47m inclusive. | 1m | |
| 16b | 55 | 1m | |
| 17a | $1\frac{1}{2}$ in the first box | 1m | Accept equivalent fractions or decimals, eg 1.5 |
| 17b | $2\frac{3}{4}$ in the second box | 1m | Accept equivalent fractions or decimals, eg 2.75 |
| 18 | Answer in the range 93 degrees to 97 degrees inclusive. | 1m | |
| 19a | 813.75 | 1m | |
| 19b | 58.17 | 1m | Do not accept -58.17 |
| 20 | A = $\boxed{10}$ B = $\boxed{0}$ OR A = $\boxed{8}$ B = $\boxed{3}$ OR A = $\boxed{4}$ B = $\boxed{9}$ OR A = $\boxed{2}$ B = $\boxed{12}$ OR A = $\boxed{0}$ B = $\boxed{15}$ | 1m U1 | Answers must be whole numbers. Accept negative numbers, eg A = 12 and B = -3 Do not accept A = 6 and B = 6 |

Test B questions 21–24

| Question | Requirement | Mark | Additional guidance |
|----------|---|---------------------------|---|
| 21 | 22 | 1m | |
| 22 | <p>Award TWO marks for the correct answer of 12</p> <p>If the answer is incorrect, award ONE mark for evidence of appropriate method, eg</p> $7.2 \div 3 \times 5$ | <p>Up to 2m</p> <p>U1</p> | <p>Answer need not be obtained for the award of ONE mark.</p> <p>Accept for ONE mark 1.2 OR 120 as evidence of appropriate method.</p> |
| 23 | <p>Award TWO marks for the correct answer of 2051</p> <p>If the answer is incorrect, award ONE mark for evidence of appropriate method, eg</p> $(4099 + 3) \div 2$ <p>OR</p> <p>continuation of sequence, eg</p> <p>259, 515, 1027, wrong number</p> | Up to 2m | Answer need not be obtained for the award of ONE mark. |
| 24 | <p>Award TWO marks for the correct answer of 2.4</p> <p>If the answer is incorrect, award ONE mark for evidence of appropriate method, eg</p> $6 \times 8 = 48 \text{ (48g fibre in one loaf)}$ $48 \div 20$ <p>OR</p> $800 \div 20 = 40 \text{ (one slice weighs 40g)}$ <p>6% of 40</p> | Up to 2m | Answer need not be obtained for the award of ONE mark. |

Mark scheme for the mental mathematics test

Applying the mark scheme

Please note that children will not be penalised if they record any information given in the question or show their working. Ignore any annotation, even if in the answer space, and mark only the answer. Accept an unambiguous answer written in the stimulus box, or elsewhere on the page.

Full mark scheme information is given on page 18. In addition, a 'quick reference' mark scheme is provided on page 17. This is presented in a similar format to the children's answer sheet.

General guidance

The general guidance for marking the written tests also applies to marking the mental mathematics test. In addition, the following principles apply.

1. Unless stated otherwise in the mark scheme, accept answers written in words, or a combination of words and figures.
2. Where units are specified, they are given on the answer sheet. Children are not penalised for writing in the units again.
3. Where answers are required to be ringed, do not accept if more than one answer is ringed, unless it is clear which is the child's intended answer. Accept also any other way of indicating the correct answer, eg underlining.

Mental mathematics 2004

quick reference mark scheme

Practice question

| | |
|--|--|
| | |
|--|--|

Time: 5 seconds

| | |
|----------|-----------------|
| 1 | 48 hours |
|----------|-----------------|

| | |
|----------|-----------|
| 2 | 38 |
|----------|-----------|

| | |
|----------|------------|
| 3 | 210 |
|----------|------------|

| | |
|----------|----------|
| 4 | 6 |
|----------|----------|

| | |
|----------|-----------|
| 5 | 44 |
|----------|-----------|

Time: 10 seconds

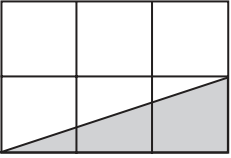
| | |
|----------|-----------|
| 6 | 99 |
|----------|-----------|

| | |
|----------|--|
| 7 | <p>Bus times</p> <p>07:15</p> <p>07:35</p> <p>07:55</p> <p>08:15</p> |
| | 20 minutes |

| | |
|----------|---|
| 8 | $\frac{1}{20}$ $\frac{1}{100}$ $\frac{2}{3}$ $\frac{3}{4}$ $\frac{5}{10}$ |
|----------|---|

| | | |
|----------|--------------|-------------|
| 9 | £1.65 | Accept 165p |
|----------|--------------|-------------|

| | |
|-----------|-----------|
| 10 | 40 |
|-----------|-----------|

| | |
|-----------|---|
| 11 |  |
| | $\frac{1}{4}$ Accept 0.25 or equivalent fractions |

| | |
|-----------|---------------|
| 12 | 4500 m |
|-----------|---------------|

| | | |
|-----------|---------------|--------------------------|
| 13 | -14 °C | Do not accept 14- |
|-----------|---------------|--------------------------|

| | |
|-----------|------------|
| 14 | 5.2 |
|-----------|------------|

| | |
|-----------|--------------|
| 15 | 0.075 |
|-----------|--------------|

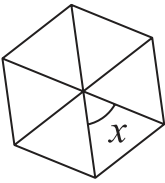
Time: 15 seconds

| | |
|-----------|------------|
| 16 | 890 |
|-----------|------------|

| | |
|-----------|-----------|
| 17 | 55 |
|-----------|-----------|

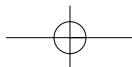
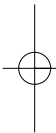
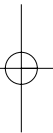
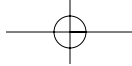
| | |
|-----------|--|
| 18 | <p>100 140 260</p> <p style="text-align: center;">300 340</p> |
|-----------|--|

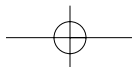
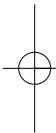
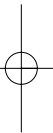
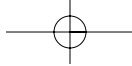
| | |
|-----------|----------------------------|
| 19 | 220 cm ² |
|-----------|----------------------------|

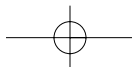
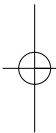
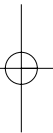
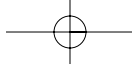
| | |
|-----------|---|
| 20 |  |
| | 60 degrees |

Mental mathematics questions 1–20

| Question | Requirement | Mark | Additional guidance |
|----------|---|------|--|
| 1 | 48 hours | 1m | |
| 2 | 38 | 1m | |
| 3 | 210 | 1m | |
| 4 | 6 | 1m | |
| 5 | 44 | 1m | |
| 6 | 99 | 1m | |
| 7 | 20 minutes | 1m | |
| 8 | $\frac{1}{20}$ $\frac{1}{100}$ $\frac{2}{3}$ $\frac{3}{4}$ $\frac{5}{10}$ | 1m | Accept any other way of indicating the answer, eg underlining. Do not accept if more than one answer is indicated unless the child's intention is clear. |
| 9 | £1.65 | 1m | |
| 10 | 40 | 1m | |
| 11 | $\frac{1}{4}$ | 1m | Accept equivalent fractions. Accept 0.25 |
| 12 | 4500m | 1m | |
| 13 | -14°C | 1m | Do not accept 14- |
| 14 | 5.2 | 1m | |
| 15 | 0.075 | 1m | |
| 16 | 890 | 1m | |
| 17 | 55 | 1m | |
| 18 | 100 140 260 $\frac{300}{}$ 340 | 1m | Accept any other way of indicating the answer, eg underlining. Do not accept if more than one answer is indicated unless the child's intention is clear. |
| 19 | 220cm ² | 1m | |
| 20 | 60 degrees | 1m | |







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