Ma

KEY STAGE
2

LEVELS
3–6

2002

Mathematics tests

Mark schemes

2

Test A, levels 3–5
Test B, levels 3–5
Mental arithmetic test, levels 3–5
Extension test C, level 6

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Marking the mathematics tests

As in 2001, 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 arithmetic and the level 6 extension test C. Level threshold tables will be available on the QCA website on Wednesday 26 June (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 4 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.

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 arithmetic test, general guidance on marking is given on page 20, 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. 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 still uncertain, 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;	If so, the mark **will** be awarded.
	the child has continued to give redundant extra working which **does not** contradict work already done;	If so, the mark **will** be awarded.
	the child has continued to give redundant extra working which **does** contradict work already done.	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

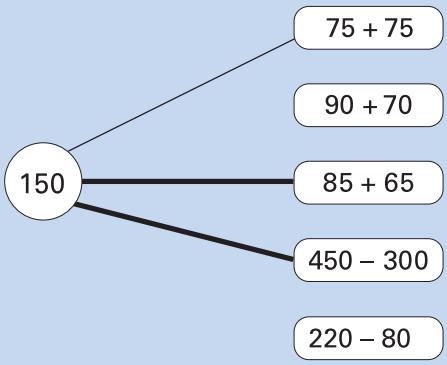
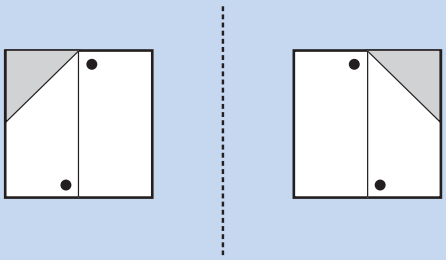
In the grey margin there is a mark box for each question part. For the written tests, the number of marks gained on each double page will be written in the total box at the bottom of the right-hand page. For all of the tests, the total number of marks gained on each paper will be recorded on the front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

All questions in the written tests, even those not attempted by the child, will be marked with a '2', '1' or '0' entered in the mark box. A two-mark question which is correct has '2' entered in the mark box. 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 mark box. Otherwise, '0' will be entered in the mark box. For questions in the mental arithmetic tests, marks of either '1' or '0' are possible.

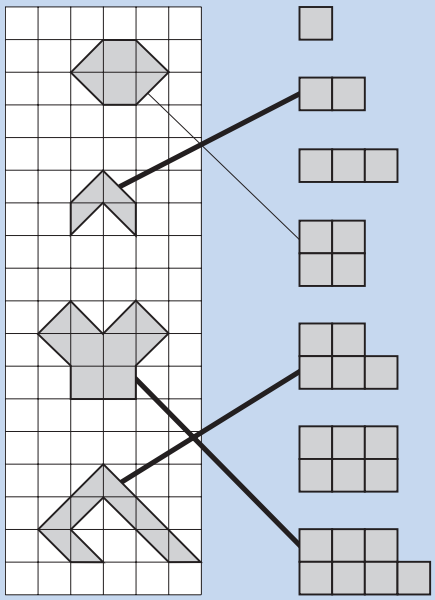
Test A carries a total of 40 marks. Test B also carries a total of 40 marks. The mental arithmetic test carries a total of 20 marks. There is a total of 30 marks available in Test C.

The 2002 key stage 2 mathematics tests and mark schemes were developed by the Mathematics Test Development Team at QCA.

Test A questions 1–3

Question	Requirement	Mark	Additional guidance
1	Award **TWO** marks for the 2 lines drawn as shown:  If the answer is incorrect, award **ONE** mark for at least one correct line drawn **AND** not more than one incorrect line drawn.	***Up to 2m***	***Do not*** *award any marks if two or more incorrect lines are drawn.*
2a	5 × 70 = **350**	***1m***	
2b	4 × **50** = 200	***1m***	
3	Diagram completed as shown: 	***1m***	*Accept slight inaccuracies in drawing provided the intention is clear.* *Accept answers without shading.*

Test A questions 4–5

Question	Requirement	Mark	Additional guidance
4a	80p **OR** £0.80	***1m***	*Accept £0.80p **OR** 0.80 **OR** 80 **OR** £.80 **OR** £.80p **OR** £0 80 **OR** .80 **OR** 0 80* ***Do not** accept £80p **OR** £80 **OR** £0.8 **OR** 0.80p*
4b	£2.25 **OR** 225p	***1m***	*Accept £2.25p **OR** 2.25 **OR** 225 **OR** £2 25* ***Do not** accept £225p **OR** £225*
5	Award **TWO** marks for the 3 shapes matched correctly as shown:  If the answer is incorrect, award **ONE** mark for any two shapes correctly matched.	***Up to 2m***	*Lines need not touch shapes or area boxes exactly provided the intention is clear.* ***Do not** accept shapes on the left which have been matched to more than one area on the right.*

Test A questions 6–9

Question	Requirement	Mark	Additional guidance
6a	£2.45	**1m**	*Accept £2.45p* ***OR*** *£2 45* ***Do not*** *accept £245* ***OR*** *£245p*
6b	CC	**1m**	*Accept 'C'.* ***Do not*** *accept £1.55*
7	All three numbers circled as shown: 18 **(32)** **(56)** 68 **(72)**	**1m**	***Do not*** *award the mark if additional incorrect numbers are circled.* *Accept unambiguous alternatives, eg ticks, numbers crossed or underlined.*
8	Two cards ticked as shown: $1\frac{1}{4}$ ✓ $1\frac{1}{2}$ $1\frac{3}{4}$ $3\frac{1}{2}$ $3\frac{3}{4}$ ✓ $4\frac{1}{4}$ **OR** $1\frac{1}{4}$ $1\frac{1}{2}$ ✓ $1\frac{3}{4}$ $3\frac{1}{2}$ ✓ $3\frac{3}{4}$ $4\frac{1}{4}$	**1m**	*Accept alternative unambiguous indications such as circling or a line joining a correct pair of cards.*
9	9 1 8 **OR** 9 3 8	**1m**	

Test A questions 10–11

Question	Requirement	Mark	Additional guidance
10a	Answer in the range 44p to 46p inclusive.	***1m***	
10b	20p	***1m***	*Accept £0.20p **OR** £0 20* ***Do not** accept 0.20p **OR** £20p*
11a	Award **TWO** marks for the correct answer of £21.80 If the answer is incorrect, award **ONE** mark for evidence of appropriate working, eg 3.50 × 4 = 14.00 1.95 × 4 = 7.80 14.00 + 7.80 = wrong answer	***Up to 2m***	*Accept £21.80p **OR** £21 80* *Accept for **ONE** mark £2180p **OR** £2180 **OR** £21.8 as evidence of appropriate working.* *Calculation must be performed for the award of **ONE** mark.*
11b	An explanation which recognises that each square slab costs more than half a rectangular slab or equivalent, eg ■ 'Half of £3.50 is £1.75, which is less than £1.95'; ■ 'Two square slabs cost more than one rectangular slab'; ■ 'Because 12 squares cost £23.40'; ■ 'Because it would cost £1.60 more'.	***1m***	***Do not** accept vague or arbitrary explanations, eg* ■ *'Because he would need more slabs';* ■ *'Because square slabs are cheaper than rectangular slabs';* ■ *'Because it costs more';* ■ *'He is right because the square slabs are £1.95 each and the rectangular slabs are £3.50 each'.*

Test A questions 12–15

<table>
<tr><th>Question</th><th>Requirement</th><th>Mark</th><th>Additional guidance</th></tr>
<tr><td>12</td><td>Digits written in boxes as shown:

4 6 4 + 38 7 = 851</td><td>1m</td><td></td></tr>
<tr><td>13a

13b</td><td>83mm OR 8cm 3mm

29mm OR 2cm 9mm</td><td>1m

1m</td><td>Do not accept 8.3mm

Do not accept 2.9mm</td></tr>
<tr><td>14</td><td>8340</td><td>1m</td><td></td></tr>
<tr><td>15</td><td>Award TWO marks for the table completed as shown:

<table><tr><th>grams</th><th>kilograms</th></tr><tr><td>3500</td><td>3.5</td></tr><tr><td>1200</td><td>1.2</td></tr><tr><td>250</td><td>0.25</td></tr><tr><td>30</td><td>0.03</td></tr></table>
If the answer is incorrect, award ONE mark for two of the three numbers completed correctly.</td><td>Up to 2m</td><td>For 0.25, accept .25 OR $\frac{1}{4}$</td></tr>
</table>

Test A questions 16–18

Question	Requirement	Mark	Additional guidance
16	0.21	**1m**	*Accept .21*
17	(40, 27)	**1m**	*Coordinates must be written in the correct order.* *Accept unambiguous answers written on the diagram.*
18a	Award **TWO** marks for correct answer as shown: 2 **bags** of **green** apples 3 **bags** of **red** apples If the answer is incorrect, award **ONE** mark for evidence of appropriate working, eg Listing of cost of apples: 75 90 150 180 225 270	**Up to 2m**	***Both*** *numbers must be correct for the award of the marks.* *Calculation must be performed for the award of* ***ONE*** *mark.*
18b	An explanation that shows how it is possible to buy more apples but spend less money, eg ■ 'Nika buys 2 bags of red apples, giving 20 apples for £1.80, and Hassan buys 3 bags of green apples, giving 18 apples for £2.25'.	**1m**	***Do not*** *accept vague or arbitrary explanations, eg* ■ *'She got bigger bags than he did';* ■ *'She bought a lot of small ones'.* *Ignore slight errors in arithmetic that do not contradict the explanation.*

Test A questions 19–21

Question	Requirement	Mark	Additional guidance
19	5 and 6 written in the boxes in either order as shown: **5** 0 × **6** 0 = 3 0 0 0 **OR** **6** 0 × **5** 0 = 3 0 0 0	**1m**	
20	–60 in first box. –140 in second box **OR** a number 80 less than the answer given in the first box provided both numbers are less than 0	**Up to 2m**	*Accept 'minus 60'* ***Do not** accept '60–'* *Accept 'minus 140'* ***Do not** accept '140–'* *If the answers given are '60–' and '140–' respectively, award **ONE** mark only.*
21	Award **TWO** marks for boxes ticked and crossed as shown: ☑ ☒ ☑ ☒ If the answer is incorrect, award **ONE** mark for three out of four boxes correctly completed.	**Up to 2m**	*Accept alternative unambiguous indications such as **Y** and **N**.* *Accept blank boxes as crosses.*

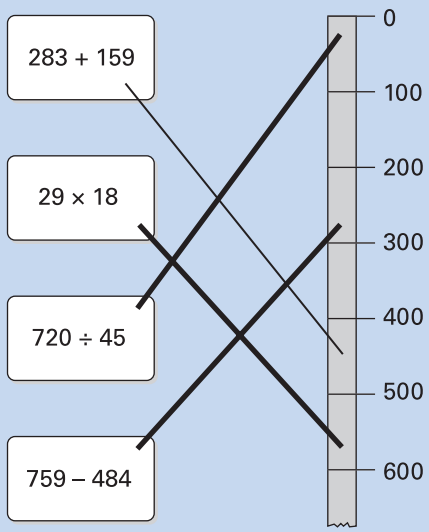
Test A question 22

Question	Requirement	Mark	Additional guidance
22	Award **TWO** marks for the correct answer of 42 If the answer is incorrect award **ONE** mark for evidence of appropriate working containing no more than one arithmetic error, eg ■ long division algorithm wrong answer 22) 924 880 44 – 44 0 ■ short division algorithm wrong answer 22) 924 ■ repeated addition / subtraction methods 924 – 440 20 × 22 484 – 440 20 × 22 44 – 44 2 × 22 0 wrong answer ■ factor / multiple methods, eg 22 × 10 = 220 × 4 22 × 40 = 880 + 44 924 924 ÷ 22 = wrong answer	**Up to 2m**	*Calculation must be performed for the award of **ONE** mark.* *Short division methods must be supported by evidence of appropriate carrying figures to indicate use of a division algorithm.* ***No mark** is awarded for repeated addition / subtraction the wrong number of times.*

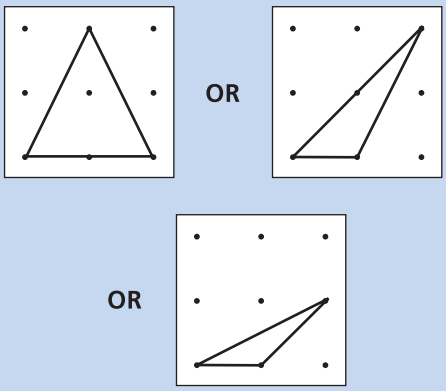
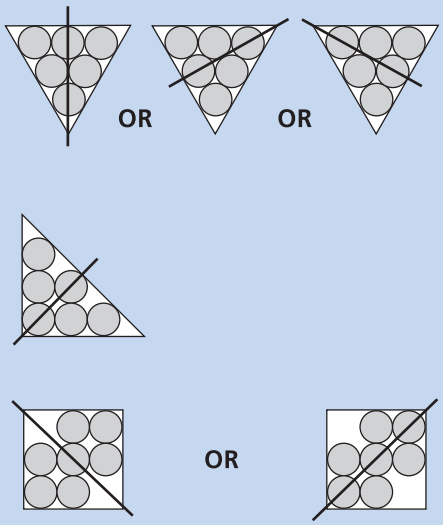
Test A questions 23–24

Question	Requirement	Mark	Additional guidance
23a	$x =$ **55°**	**1m**	
23b	$y =$ **145°**	**1m**	*If the answers for 23a and 23b are transposed, but otherwise correct, award **ONE** mark only, in the 23b box.*
24	An appropriate explanation which recognises that: $\frac{1}{3} = \frac{5}{15}$ and $\frac{2}{5} = \frac{6}{15}$ **OR** $\frac{1}{3} = \frac{2}{6}$ which is less than $\frac{2}{5}$ **OR** that $\frac{1}{3}$ is less than $\frac{2}{5}$ because $3 \times \frac{2}{5}$ is greater than 1	**1m**	*No mark is awarded for writing $\frac{2}{5}$ alone.* ***Do not** accept vague or arbitrary explanations, eg* ■ *'Because $\frac{2}{5}$ is bigger than $\frac{1}{3}$';* ■ *'Because $\frac{1}{3}$ comes first on a number line'.*

Test B questions 1–3

Question	Requirement	Mark	Additional guidance
	Diagram completed correctly as shown:  		*Lines need not touch boxes or number line provided the intention is clear.* ***Do not** accept two or more lines emanating from the same left-hand box.*
1a	29 × 18 joined to the number line in the range 500 to 600 exclusive.	***1m***	
1b	720 ÷ 45 joined to the number line in the range 0 to 100 exclusive.	***1m***	
1c	759 – 484 joined to the number line in the range 200 to 300 exclusive.	***1m***	
2a	22 × **30** = 660	***1m***	
2b	**184** – 75 = 109	***1m***	
3a	7	***1m***	
3b	15	***1m***	*Accept '9 and 6' or similar.*

Test B questions 4–5

Question	Requirement	Mark	Additional guidance
4	Triangles without a right angle drawn in any orientation on the grid, eg  **OR** **OR**	**1m**	***Do not*** *penalise lines drawn without a ruler, provided the intention is clear.* *Accept only triangles which have vertices at dots.*
5	Award **TWO** marks for one line of symmetry drawn correctly on each diagram as shown:  **OR** **OR** **OR** If the answer is incorrect, award **ONE** mark for lines of symmetry drawn correctly on any two diagrams.	***Up to 2m***	*Accept slight inaccuracies in drawing provided intention is clear.* *Accept diagrams with more than one line drawn, provided all the lines are correct.* *The length of the line is unimportant provided the intention is clear.*

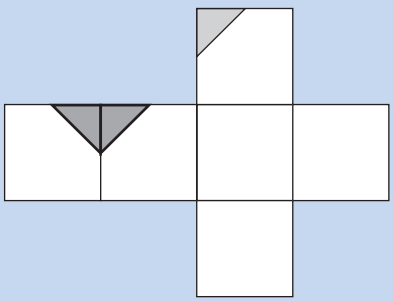
Test B questions 6–11

Question	Requirement	Mark	Additional guidance
6a	74p **OR** £0.74	**1m**	*Accept 74 **OR** 0.74 **OR** £0.74p **OR** 0 74 **OR** £.74 **OR** £.74p **OR** £0 74 **OR** .74* ***Do not** accept £74p **OR** £74 **OR** 0.74p*
6b	Award **TWO** marks for the correct answer of £4.38 If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, eg 2.96 × 3 = 8.88 8.88 – 4.50	**Up to 2m**	*Accept for **TWO** marks £4.38p **OR** £4 38* *Accept for **ONE** mark £438 **OR** £438p as evidence of an appropriate method.* *Answer need not be obtained for the award of the mark.*
7	Arrow drawn between the marks for 425ml and 450ml exclusive.	**1m**	
8a	9	**1m**	
8b	7	**1m**	*Accept –7*
9a	4	**1m**	
9b	12	**1m**	
10	32.45 × 7.8 = 253.11	**1m**	
11a	£249.75	**1m**	*Accept £249.75p **OR** £249 75* ***Do not** accept £24975p **OR** £24975*
11b	Award **TWO** marks for the correct answer of 82 If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, eg 1230 ÷ 15 **OR** 12.30 ÷ 0.15	**Up to 2m**	*Accept for **ONE** mark £82 **OR** 82p as evidence of an appropriate method.* ***Do not** accept 12.30 ÷ 15 as evidence of an appropriate method.* *Answer need not be obtained for the award of the mark.*

Test B questions 12–13

Question	Requirement	Mark	Additional guidance
12	Award **TWO** marks for three letters in the correct regions of the sorting diagram, as shown: A | | **B** **D** | **C** | Award **ONE** mark for two letters in the correct regions of the sorting diagram.	**Up to 2m**	***Do not*** *accept letters that are written in more than one region.* *Accept alternative indications such as lines drawn from the shapes to the appropriate regions of the sorting diagram.*
13a	Award **TWO** marks for the correct answer of 2 If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, eg $\frac{3}{4}$ of 24 = 18 green = 24 – 18 – 4	**Up to 2m**	*Answer need not be obtained for the award of the mark.*
13b	$\frac{1}{5}$	**1m**	*Accept equivalent fractions.* ***Do not*** *accept '1 in 5'* ***OR*** *'1 : 5'.*

Test B questions 14–19

Question	Requirement	Mark	Additional guidance
14a	£64.30	**1m**	*Accept £64.30p* ***OR*** *£64 30* ***Do not*** *accept £6430* ***OR*** *£6430p* ***OR*** *£64.3*
14b	£4.50	**1m**	*Accept £4.50p* ***OR*** *£4 50* ***Do not*** *accept £450* ***OR*** *£450p* ***OR*** *£4.5* *If the final '0' is missing from both answers, ie answers given are £64.3 and £4.5 respectively, award* ***ONE*** *mark only in 14b.*
15	12:02	**1m**	*Accept 1202* ***OR*** *12.02* ***OR*** *00:02* ***OR*** *0002* ***OR*** *00.02* *Accept 'two minutes past twelve' or equivalent.* *Ignore am or pm.*
16	520.608	**1m**	
17a	Any value in the range 8.6 to 8.8 inclusive.	**1m**	
17b	Any value in the range 3.2 to 3.4 inclusive.	**1m**	
18	0.01 0.05 **(0.11)** 0.2 0.9	**1m**	*Accept unambiguous alternatives, eg the number crossed or underlined.*
19	Diagram marked as shown: 	**1m**	*Both triangles must be correctly marked.* *Accept slight inaccuracies in drawing, provided the intention is clear.* *Triangles need not be shaded.*

Test B questions 20–22

Question	Requirement	Mark	Additional guidance
20	Any pair of numbers which total 50, eg 30 and 20	***1m***	*Accept fractions and decimals.* *Accept zero in either box.* ***Do not*** *accept boxes left blank.*
21	Award **TWO** marks for the correct answer of 45cm. If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, eg $60 \div 4 \times 3$	***Up to 2m***	*Answer need not be obtained for the award of the mark.*
22	Award **TWO** marks for the correct answer of 82 If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, eg $(4 \times 10) + (7 \times 6)$ **OR** $(10 \times 10) - (3 \times 6)$	***Up to 2m***	*Answer need not be obtained for the award of the mark.*

Mark scheme for the mental arithmetic 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. Markers will ignore any annotation, even if in the answer space, and mark only the answer. Markers will accept an unambiguous answer written in the stimulus box, or elsewhere on the page.

Full mark scheme information is given on pages 21 and 22. In addition a 'quick reference' mark scheme is provided on page 20. This is presented in a similar format to the children's answer sheet.

General guidance

The general guidance for the marking of the written tests also applies to the marking of the mental test. In addition, please apply the principles below.

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. Do not penalise children 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 arithmetic 2002
quick reference mark scheme

Practice question

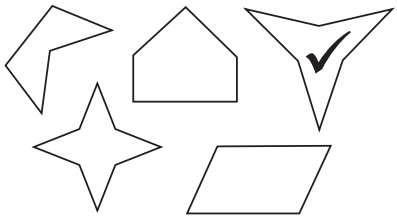
	33

Time: 5 seconds

1	106	
2	6058	Words not acceptable
3	56	
4	8	
5	5000	

Time: 10 seconds

6	£ 1.70	Accept £1-70 or £1.70p
7	10:15	Accept 22:15 or quarter past ten
8	95	
9	17.1	

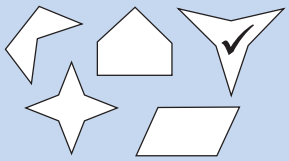
10	
11	$\frac{1}{4}$ $\frac{1}{40}$ $\frac{1}{400}$ **$\frac{4}{10}$** $\frac{4}{100}$
12	8 cm
13	8.6
14	63
15	198

Time: 15 seconds

16	165
17	42
18	60 75 **90** 100 150
19	150
20	£ 3.00

Accept £3 or £3-00 or £3.00p

Mental arithmetic questions 1–15

Question	Requirement	Mark	Additional guidance
1	106	**1m**	
2	6058	**1m**	*Words **not** acceptable*
3	56	**1m**	
4	8	**1m**	
5	5000	**1m**	
6	£1.70	**1m**	*Accept any clear indication of the distinction between pounds and pence. Allow variants of £1.70 such as £1-70 **OR** £1 70 **OR** £1.70p* ***Do not** accept £170 **OR** £170p*
7	10:15	**1m**	*Accept 22:15 **OR** quarter past ten.*
8	95	**1m**	
9	17.1	**1m**	
10		**1m**	*Accept any other way of indicating the answer, eg crosses or ringed.* ***Do not** accept if more than one answer is indicated unless the child's intention is clear.*
11	$\frac{1}{4}$ $\frac{1}{40}$ $\frac{1}{400}$ $\frac{4}{10}$ $\frac{4}{100}$	**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.*
12	8	**1m**	
13	8.6	**1m**	
14	63	**1m**	
15	198	**1m**	

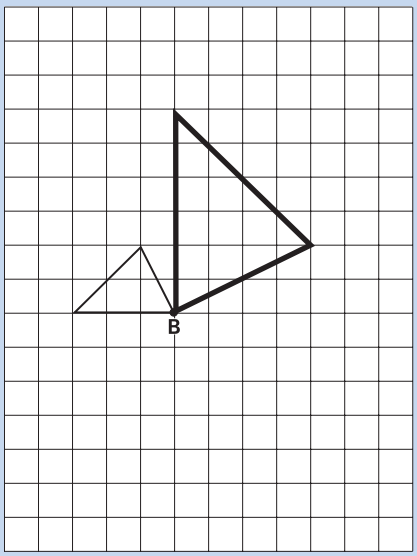
Mental arithmetic questions 16–20

Question	Requirement	Mark	Additional guidance
16	165	**1m**	
17	42	**1m**	
18	**60** **75** **(90)** **100** **150**	**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	150	**1m**	
20	£3.00	**1m**	*Accept any clear indication of the distinction between pounds and pence. Allow any variants of £3.00 such as £3 **OR** £3-00 **OR** £3 00 **OR** £3.00p* ***Do not** accept £300 **OR** £300p **OR** £3p*

Test C questions 1–3

Question	Requirement	Mark	Additional guidance
1	Award **TWO** marks for the correct answer of $\frac{4}{15}$ If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, eg $\frac{1}{3} = \frac{5}{15}$ $\frac{2}{5} = \frac{6}{15}$ $C = \frac{15 - 5 - 6}{15}$	**Up to 2m**	*Answer need not be obtained for the award of the mark.*
2	Award **TWO** marks for the correct answer of 67 If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, eg 7 gaps = 77 1 gap = 11	**Up to 2m**	*Answer need not be obtained for the award of the mark.*
3	Award **TWO** marks for the correct answers of 0.4 and 0.9 in either order. If only one answer is correct, in either box, award **ONE** mark.	**Up to 2m**	

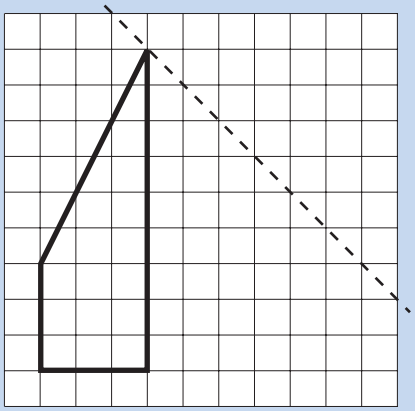
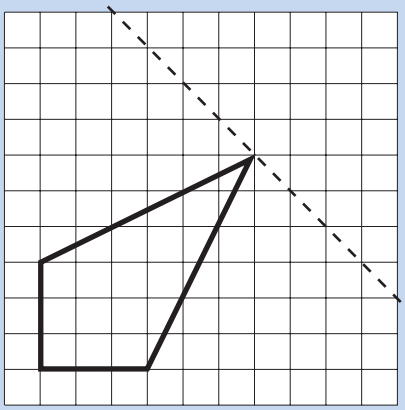
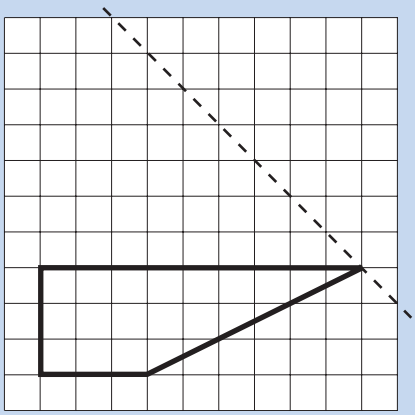
Test C question 4

Question	Requirement	Mark	Additional guidance
4	Award **TWO** marks for diagram completed as shown:  If the diagram is incorrect, award **ONE** mark for: shape correctly rotated, and either not enlarged, or enlarged by the wrong scale factor; **OR** shape correctly enlarged from point B but not rotated; **OR** shape correctly enlarged and rotated but translated to another part of the grid.	***Up to 2m***	*Accept slight inaccuracies in drawing provided the intention is clear.* ***Do not*** *penalise lines drawn without a ruler provided the intention is clear.*

Test C questions 5–7

Question	Requirement	Mark	Additional guidance
5a	Award **TWO** marks for the correct answer of 35 If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, eg $104 = 3n - 1$ $105 = 3n$ $n = 105 \div 3$	**Up to 2m**	*Answer need not be obtained for the award of the mark.*
5b	$2n + 1$	**1m**	*Accept equivalent expressions, eg* $n + n + 1$ *Accept the answer written in words, eg* *'twice the shape number add one'.*
6a	Answer in the range 12:30pm to 1:00pm exclusive.	**1m**	*Accept answers with or without 'pm'.*
6b	Award **TWO** marks for the correct answer of $26\frac{2}{3}\%$ **OR** $26.\dot{6}\%$ If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, eg $40 \div 150 \times 100$	**Up to 2m**	*Accept 26.6% **OR** 26.7% **OR** 26.6...% **OR** 27%* *Accept for **ONE** mark 26%* *Answer need not be obtained for the award of the mark.*
7	Award **TWO** marks for table ticked as shown: (3, 7) ✓ (7, 1) ✓ (1, –7) ✓ (–2, –2) ✓ If the answer is incorrect, award **ONE** mark for two out of three added ticks correctly placed.	**Up to 2m**	*Accept alternative unambiguous indications eg, **Y** or **N**, or crosses in the table.* ***Do not** accept any row that has ticks in more than one box.*

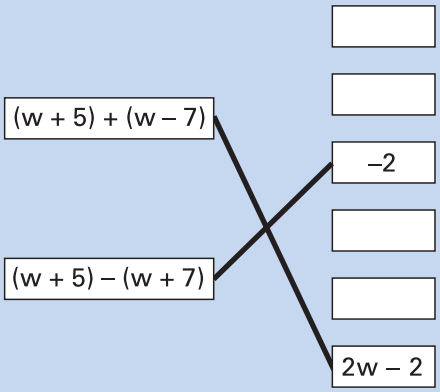
Test C question 8

Question	Requirement	Mark	Additional guidance
8	Two more lines drawn which intersect at a fourth vertex located anywhere on the dotted line shown on the diagrams below, eg  **OR**  **OR** 	**1m**	*Accept slight inaccuracies in drawing provided the intention is clear.*

Test C questions 9–13

Question	Requirement	Mark	Additional guidance
9	Award **TWO** marks for the correct answer of 2.25 If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, eg algebraic manipulation to reach $18 = 8t$	**Up to 2m**	*Answer need not be obtained for the award of the mark.*
10	0.9 **(0.09)** 0.99 **(0.1)** 0.01	**1m**	*Accept alternative ways of indicating the correct answer, eg ticking the correct numbers.*
11	Award **TWO** marks for the correct answer of 60% If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, eg $\frac{75}{100} \times 80$	**Up to 2m**	*Answer need not be obtained for the award of the mark.*
12	Award **TWO** marks for the correct answer of 220 If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, eg $275 \div 5 \times 4$	**Up to 2m**	*Answer need not be obtained for the award of the mark.*
13	Award **TWO** marks for the correct answer as shown: A = **30** B = **50** C = **20** If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, eg A + B = 80 B + C = 70 A + 2B + C = 150 100 + B = 150	**Up to 2m**	*All three numbers must be correct for the award of the mark.* *Accept for* **ONE** *mark the correct three numbers but written in the incorrect boxes.*

Test C questions 14–15

Question	Requirement	Mark	Additional guidance
14a	$x =$ **55°**	**1m**	
14b	$y =$ **20°** **OR** y = (Answer to 14a – 35°)	**1m**	*If answers to x and y are transposed but otherwise correct, award **ONE** mark only in the 14b box.*
15a **15b**		**1m** **1m**	*Top box on left joined to 2w – 2* *Lower box on left joined to –2* ***Do not** accept two or more lines emanating from the same left-hand box.*

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