

2023 national curriculum tests

Key stage 1

Mathematics test mark schemes

Paper 1: arithmetic

Paper 2: reasoning



Standards
& Testing
Agency

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1. Introduction

The Standards and Testing Agency (STA) is responsible for the development and delivery of statutory tests and assessments. STA is an executive agency of the Department for Education.

The 2023 tests assess the national curriculum. This test has been developed to meet the specification set out in the [test framework](#)¹ for mathematics at key stage 1.

A new test and new mark schemes will be produced each year.

The key stage 1 tests will be marked internally within schools to inform teacher assessment.

Scaled score conversion tables are not included in this document. Conversion tables will be produced as part of the standards maintenance process. [Scaled score conversion tables](#)² for the 2023 tests will be published in June 2023.

The mark schemes should be used to mark pupils' responses. The pupil examples are based on responses gathered from the test trialling process. It is important when marking to refer to the general marking principles, the additional guidance and the exemplars section to ensure marking is accurate and consistent.

2. Structure of the test

The key stage 1 mathematics test comprises:

- Paper 1: arithmetic (25 marks)
- Paper 2: reasoning (35 marks)

1 www.gov.uk/government/publications/key-stage-1-mathematics-test-framework

2 www.gov.uk/guidance/scaled-scores-at-key-stage-1

3. Content domain coverage

The 2023 test meets the specification in the test framework. Table 1 sets out the areas of the content domain that are assessed in Papers 1 and 2.

The references below are taken from the test framework. For example, a question with reference 2N6 assesses 'Using place value and number facts to solve problems' and is taken from the Y2 programme of study.

Table 1: Content domain coverage for Paper 1 and Paper 2

Paper 1: arithmetic		Paper 2: reasoning	
Question	Content domain reference	Question	Content domain reference
1	1C2a/2C1	1	1C1/1N4
2	2N1/1N1b	2	2N3
3	1C2a/2C1	3	1M3
4	2C6	4	2C4/2C1
5	2N1/1N1b	5	2C6
6	2N6	6	2N2a/1N2c
7	2C6	7	2S1
8	2C1	8	2G1a/2G2a
9	2C2b	9	1G1b/2G1b
10	2C2b	10	2M4b/1M4b
11	2C6	11	2N2b
12	2C6	12	2N1/2N4
13	2C6	13	1C4/1C2a
14	2C2b	14	2C1/1C2a/1C1
15	2F1a/1F1a	15	2S1
16	2C2b	16	2C8
17	2N6/2C2b	17	2N4/2C2b/2N3
18	2C2b	18	2C4/2N6/2C2b
19	1C4	19	2C7/1C2b
20	2C3	20	2C1/2N1/2N6
21	2F1a	21	2C8/2C7
22	2F1a	22	2F1b/2F1a
23	2C2b	23	2M9
24	2C2b	24	1F1a/1C8
25	2C2b	25	2C8/2C4
		26	2M9/2C4
		27	2C8/2C4
		28	2P2
		29	2C4
		30	2N6/2C3
		31	2C3/2C1
		32	2N1/2C6/2N6

4. Explanation of the mark schemes

Those marking the tests should familiarise themselves with the marking guidance in section 5 of this document before applying the mark schemes.

The practice questions are not marked as they are completed by the pupils together with the test administrator as an introduction to the test.

The marking information for each question is set out in the form of tables (sections 7 and 8).

The '**Qu.**' column on the left-hand side of each table provides a quick reference to the question number and 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 partial credit can be given for a correct method
- examples of some different types of correct answer

The '**Mark**' column indicates the total number of marks available for each question part.

The '**Additional guidance**' column indicates alternative acceptable answers, and provides details of specific types of answer that are unacceptable. Other guidance, such as the range of acceptable answers, is provided as necessary.

5. General marking guidance

5.1 Applying the mark schemes

To ensure consistency of marking, the most frequent procedural queries are listed in Table 2, along with the action you should take. Unless otherwise specified in the mark scheme, you should apply these guidelines in all cases.

Example responses are also included in section 9 for the two working mark questions and one other question in Paper 2: reasoning. These should act as your guide when you are marking these questions.

5.2 General marking principles

Table 2: General marking principles

Possible issues when marking	
1. The answer does not closely match any of the examples in the mark scheme.	Those marking the test will use their judgement to decide whether the answer corresponds with details in the 'Requirement' column of the mark scheme. Refer also to the 'Additional guidance' column and to the examples of responses where appropriate.
2. The pupil has answered in a non-standard way.	Pupils may provide evidence in any form as long as its meaning can be understood. Diagrams, symbols or words are acceptable ways to present an answer.
3. The answer is correct, but the wrong working is shown.	Always award the mark for a final response that is correct.
4. No answer is provided in the expected place, but the correct answer is given elsewhere.	Where a word or number response is expected, a pupil may meet the requirement by annotating a graph or labelling a diagram elsewhere in the question.
5. The correct answer has been crossed (or rubbed) out and not replaced.	You should not award any marks for crossed out answers or working.
6. The answer in the answer box is wrong, but the correct answer is shown in the working.	Give precedence to the response provided in the answer box over any other workings. However, in a 2-mark question, one mark may still be awarded for evidence of a complete, correct method or a partial step, as indicated in the 'Requirement' column.

Possible issues when marking	
<p>7. More than one answer is given.</p>	<p>If all provided answers are correct (or a range of answers is given, all of which are correct), a mark will be awarded unless the mark scheme states otherwise. If both correct and incorrect responses are given, no mark will be awarded unless the mark scheme states otherwise.</p>
<p>8. There appears to be a misread of numbers that affects the pupil's working.</p>	<p>A misread occurs when a pupil misreads a number given in the question and consistently uses a different number that does not alter the original intention or difficulty of the question. For example, if 43 is misread as 48, both numbers may be regarded as comparable in difficulty. However, if 43 is misread as 40 or 45, the misread number may be regarded as making the question easier, depending on the question. For example, $26 + 40$ is easier than $26 + 48$. The misread of a number will affect the award of marks.</p> <p>No marks are awarded if there is more than one misread in a question or if the mathematics is simplified by the misread.</p> <p>For 1-mark questions: no mark is awarded for one or more misreads.</p> <p>For 2-mark questions that have a method mark: one mark is awarded if the correct method is correctly implemented with the misread number, provided this does not simplify the mathematics.</p>
<p>9. The answer is numerically equivalent to the answer in the mark scheme.</p>	<p>Answers should be given as single values in their simplest form unless the mark scheme states otherwise, for example, for $\square = 12 - 5$, the answer $4 + 3$ will not be accepted. Where alternative expressions are acceptable, these will be indicated in the additional guidance column.</p>
<p>10. The pupil reverses a digit in their answer.</p>	<p>A reversed digit is acceptable if it is clearly recognisable as the digit intended. For example, a reversed 2 must clearly show the characteristics of a 2 rather than a 5.</p> <p>As a further example, where the answer is 61 and the response ɒ1 is given, then this should be awarded the mark.</p> <p>You should make a decision based upon your knowledge of the pupil's writing.</p>

Possible issues when marking	
11. The pupil transposes digits in their answer.	<p>A pupil transposes digits by reversing their order, for example, 83 instead of 38.</p> <p>For questions where no working is shown, an answer with transposed digits should not be awarded the mark. For example, a response of 16 or 18 when the answer is 61 should not be marked as correct.</p>
12. The pupil has worked out the answer correctly, but then copied the wrong answer into the answer box.	<p>A transcription error can occur when the pupil miscopies the correct answer from the end of their working into the answer box.</p> <p>Give precedence to the answer given in the answer box over any other workings. There may be cases where the incorrect answer is a transcription error, in which case you may check the pupil's intention and decide whether to award the mark(s).</p>
13. The answer correctly follows through from earlier incorrect work.	<p>'Follow through' marks for an answer may only be awarded when specifically stated in the mark scheme.</p>

6. Internal moderation procedures


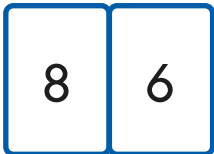
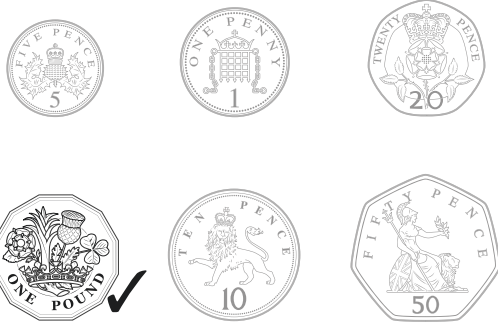
We recommend those who are involved in marking the key stage 1 tests undertake moderation activity to ensure marking is consistent across their school.

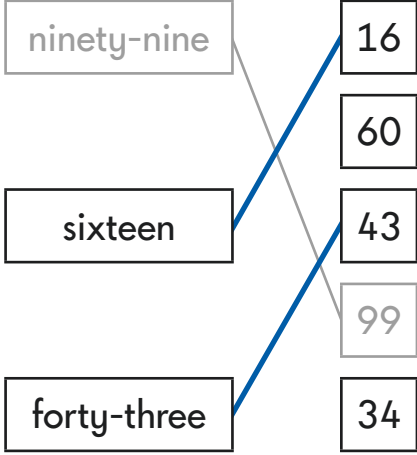
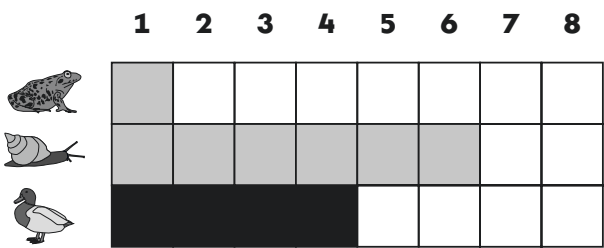
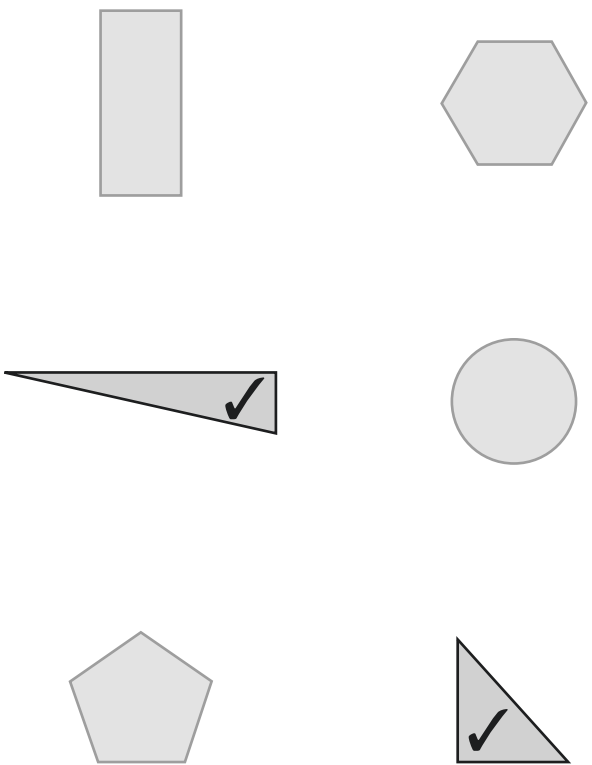
7. Mark schemes for Paper 1: arithmetic

Equivalent answers are **not** acceptable, for example, $10 + 4$ instead of 14. When marking the arithmetic questions, refer specifically to general marking principles 9, 10, 11 and 12. No misreads are allowed for 1-mark questions.
















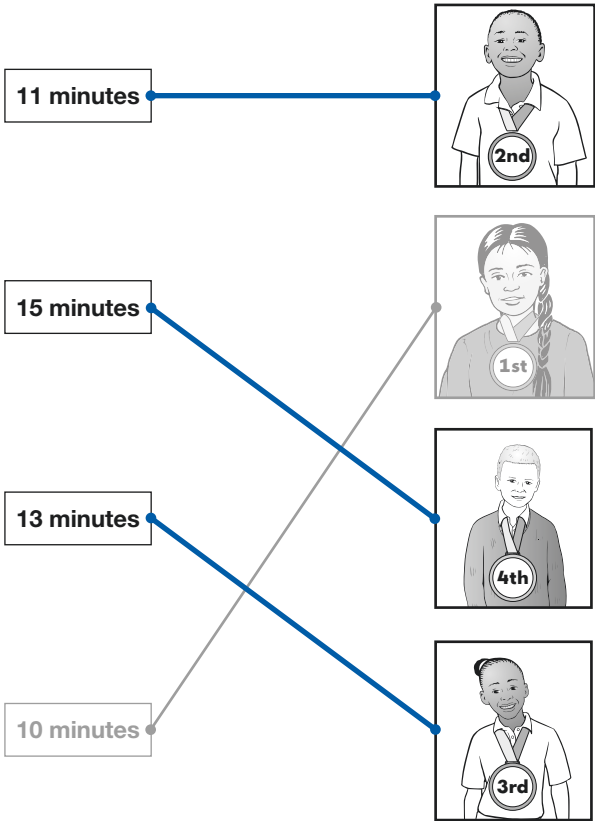
Qu.	Requirement	Mark	Additional guidance
P	6	none	Practice question
1	9	1m	
2	16	1m	
3	6	1m	
4	40	1m	
5	45	1m	
6	42	1m	
7	15	1m	
8	90	1m	
9	73	1m	
10	41	1m	
11	22	1m	
12	3	1m	
13	12	1m	
14	78	1m	
15	30	1m	
16	32	1m	
17	54	1m	
18	91	1m	
19	8	1m	
20	66	1m	
21	21	1m	
22	7	1m	
23	26	1m	
24	9	1m	
25	19	1m	

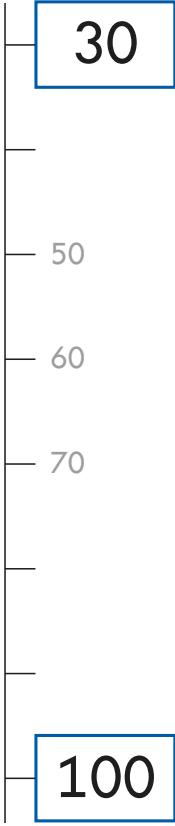
8. Mark schemes for Paper 2: reasoning

Qu.	Requirement	Mark	Additional guidance
Aural questions			
P	5 (apples)	none	Practice question
1	Correct number circled as shown: 5  2 7	1m	Accept any other clear way of indicating the correct number. Do not award the mark if additional numbers are indicated, unless it is clear the correct number is the pupil's final choice.
2	Correct two-digit number written as shown: 	1m	
3	Correct coin ticked as shown: 	1m	Accept any other clear way of indicating the correct answer, e.g. circling the correct coin. Do not award the mark if additional coins are indicated, unless it is clear that the correct coin is the pupil's final choice.
4	5 (oranges)	1m	
5	60	1m	










Qu.	Requirement	Mark	Additional guidance
Written questions			
6	<p>Both numbers in words matched to the correct numerals as shown:</p> 	1m	<p>Both numbers in words must be correctly matched for the award of the mark.</p> <p>Do not award the mark if the number in words is matched to more than one numeral.</p> <p>Ignore additional lines drawn from ninety-nine.</p>
7	<p>Four blocks added to the duck column as shown:</p> 	1m	<p>Accept slight inaccuracies in shading the block chart for the number of ducks, as long as the intention is clear.</p> <p>(Use the examples of responses given on pages 20–21 to help you determine the award of the mark.)</p>
8	<p>Both triangles ticked as shown:</p> 	1m	<p>Accept any other clear way of indicating the two correct shapes.</p> <p>Do not award the mark if additional shapes are indicated, unless it is clear that the two correct shapes are the pupil's final choice.</p>

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Qu.	Requirement	Mark	Additional guidance																								
9	<p>Table completed correctly as shown:</p> <table border="1" data-bbox="175 342 769 949"> <thead> <tr> <th>Object</th> <th>Cuboid</th> <th>Cone</th> <th>Cylinder</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td>✓</td> </tr> <tr> <td></td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td>✓</td> </tr> <tr> <td></td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>✓</td> <td></td> </tr> </tbody> </table>	Object	Cuboid	Cone	Cylinder				✓		✓						✓		✓					✓		1m	<p>All objects must have the correct shape indicated for the award of the mark.</p> <p>Do not award the mark if there is more than one shape indicated for any object.</p>
Object	Cuboid	Cone	Cylinder																								
			✓																								
	✓																										
			✓																								
	✓																										
		✓																									
10	<p>Times matched to the correct positions as shown:</p> 	1m	<p>All three times must be correctly matched for the award of the mark.</p> <p>Do not award the mark if a time is matched to more than one child.</p> <p>Ignore additional lines drawn from 10 minutes.</p>																								

Qu.	Requirement	Mark	Additional guidance
11	All three signs written correctly as shown: $21 > 12$ $48 < 64$ $55 = 55$	1m	All three signs must be correct for the award of the mark. Accept slight inaccuracies in the drawing of the signs, as long as the intention is clear.
12	Number line completed correctly as shown: 	1m	Both numbers must be correct for the award of the mark.
13	6 (blocks)	1m	

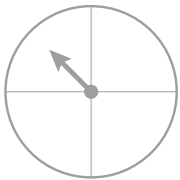
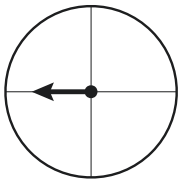
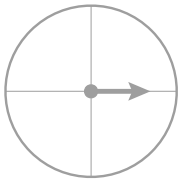
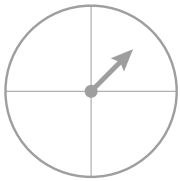
2023 key stage 1 mathematics test mark schemes

Qu.	Requirement	Mark	Additional guidance												
14	<p>All pairs of numbers correctly matched as shown:</p>	1m	<p>All three pairs of numbers must be correctly matched for the award of the mark.</p> <p>Do not award the mark if a number is matched to more than one other number.</p> <p>Ignore additional lines drawn from 5.</p>												
15	<p>Tally chart completed correctly as shown:</p> <table border="1"> <thead> <tr> <th>Bird</th> <th>Tally of birds</th> <th>Number of birds</th> </tr> </thead> <tbody> <tr> <td>robin </td> <td> </td> <td>3</td> </tr> <tr> <td>blue tit </td> <td> </td> <td>6</td> </tr> <tr> <td>sparrow </td> <td> </td> <td>10</td> </tr> </tbody> </table>	Bird	Tally of birds	Number of birds	robin 		3	blue tit 		6	sparrow 		10	1m	<p>Both boxes must be correct for the award of the mark.</p> <p>Do not accept an incorrect tally for 10, e.g.</p> <p> </p> <p>OR</p> <p> </p>
Bird	Tally of birds	Number of birds													
robin 		3													
blue tit 		6													
sparrow 		10													
16	30 (children)	1m													
17	76	1m													
18	58 (cards)	1m													

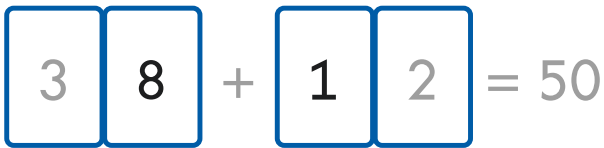

Qu.	Requirement	Mark	Additional guidance
19	<p>Award TWO marks for all three boxes completed correctly as shown:</p> <p>5 <input type="text" value="×"/> 4 = 20</p> <p>8 <input type="text" value="×"/> 2 = 16</p> <p>30 <input type="text" value="÷"/> 10 = 3</p> <p>7 <input type="text" value="+"/> 6 = 13</p> <p>Award ONE mark for any two boxes completed correctly.</p>	<p>2m</p> <p>OR</p> <p>1m</p>	<p>Accept slight inaccuracies in the drawing of the signs, as long as the intention is clear.</p>
20	<p>Calculations completed correctly as shown:</p> <p>7 + 3 = 10</p> <p>17 + 3 = 20</p> <p><input type="text" value="27"/> + 3 = 30</p> <p><input type="text" value="37"/> + 3 = <input type="text" value="40"/></p> <p>47 + 3 = 50</p>	1m	<p>All three numbers must be correct for the award of the mark.</p>

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Qu.	Requirement	Mark	Additional guidance
21	<p>Correct calculations circled as shown:</p> 3×3 $\textcircled{3 \times 4}$ $\textcircled{4 + 4 + 4}$ $3 + 3 + 3$	1m	<p>Both correct calculations must be indicated for the award of the mark.</p> <p>Accept any other clear way of indicating the correct calculations, including evaluating only the two correct calculations, i.e. writing 12 alongside each of the two correct calculations.</p> <p>Do not award the mark if other calculations have been evaluated, and the correct two have not been indicated.</p> <p>Do not award the mark if more than two calculations are indicated unless it is clear that the correct calculations are the pupil's final choice.</p>
22	$\frac{2}{4} \text{ of } 8 = \boxed{4}$ $\frac{3}{4} \text{ of } 8 = \boxed{6}$	1m	Both numbers must be correct for the award of the mark.
23	10 (p)	1m	
24	10 (cars)	1m	
25	100	1m	
26	(£) 3	1m	

Qu.	Requirement	Mark	Additional guidance
27	<p>Award TWO marks for the correct answer of 6 (sandwiches).</p> <p>If the answer is incorrect or missing, award ONE mark for evidence of a complete, correct method, e.g.</p> <ul style="list-style-type: none"> • $2 \times 9 = 18$ $24 - 18 =$ (<i>incorrect or no answer</i>) • $9 \times 2 = 12$ (<i>error</i>) $24 - 12 =$ <p>OR</p> <p>Award ONE mark for any of these partial methods correctly evaluated, e.g.</p> <ul style="list-style-type: none"> • $9 \times 2 = 18$ • $2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 = 18$ <p>OR</p> <ul style="list-style-type: none"> • Sight of 18 (as evidence of a partial method completed correctly) 	<p>2m</p> <p>OR</p> <p>1m</p>	<p>(Refer to general marking principle 6 on page 6.)</p> <p>(Use the example responses given on pages 22–23 to help you determine how many marks can be awarded.)</p>
28	<p>Correct spinner ticked as shown:</p> <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center;">  <input data-bbox="368 1323 432 1391" type="checkbox"/> </div> <div style="text-align: center;">  <input checked="" data-bbox="711 1323 775 1391" type="checkbox"/> </div> <div style="text-align: center;">  <input data-bbox="368 1626 432 1693" type="checkbox"/> </div> <div style="text-align: center;">  <input data-bbox="711 1626 775 1693" type="checkbox"/> </div> </div>	<p>1m</p>	<p>Accept any other clear way of indicating the correct spinner.</p> <p>Do not award the mark if more than one spinner is indicated, unless it is clear that the correct spinner is the pupil's final choice.</p>

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Qu.	Requirement	Mark	Additional guidance
29	<p>Award TWO marks for the correct answer of 21(grams).</p> <p>If the answer is incorrect or missing, award ONE mark for evidence of a complete, correct method, e.g.</p> <ul style="list-style-type: none"> • $32 + 47 = 89$ (error) $100 - 89 =$ • $100 - 32 = 78$ (error) $78 - 47 =$ (incorrect or no answer) <p>OR</p> <p>Any of these partial methods correctly evaluated, i.e.</p> <ul style="list-style-type: none"> • $100 - 32 = 68$ • $100 - 47 = 53$ • $32 + 47 = 79$ <p>OR</p> <ul style="list-style-type: none"> • Sight of 68, 53 or 79 (as evidence of a partial method completed correctly) 	<p>2m</p> <p>OR</p> <p>1m</p>	<p>(Refer to general marking principle 6 on page 6.)</p> <p>(Use the example responses given on pages 24–25 to help you determine how many marks can be awarded.)</p>
30	<p>Number sentence completed correctly as shown:</p> 	1m	Both digits must be correct for the award of the mark.
31	<p>Correct calculations circled as shown:</p> 	1m	<p>Accept any other clear way of indicating the correct calculations, e.g. ticking.</p> <p>Do not award the mark if additional calculations are also indicated, unless it is clear that the correct calculations are the pupil's final choice.</p>
32	32	1m	




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9. Example responses




9.1 Examples of responses from question 7

Rosie: 1 mark

	1	2	3	4	5	6	7	8
								
								
	•	•	•	•				

1

Sophia: 0 marks

	1	2	3	4	5	6	7	8
								
								
								




0

Rosie and Sophia have both constructed their responses in a non-standard way.

Rosie has clearly indicated by the dots in each of the four blocks the correct answer. This is allowed and she is awarded **ONE mark**.




In contrast, Sophia has only drawn a line at the four-point marker on the block chart. Her response is ambiguous and therefore she is awarded **no marks**.

Theo: 1 mark

	1	2	3	4	5	6	7	8
								
								
								

1

Oscar: 0 marks

	1	2	3	4	5	6	7	8
								
								
								

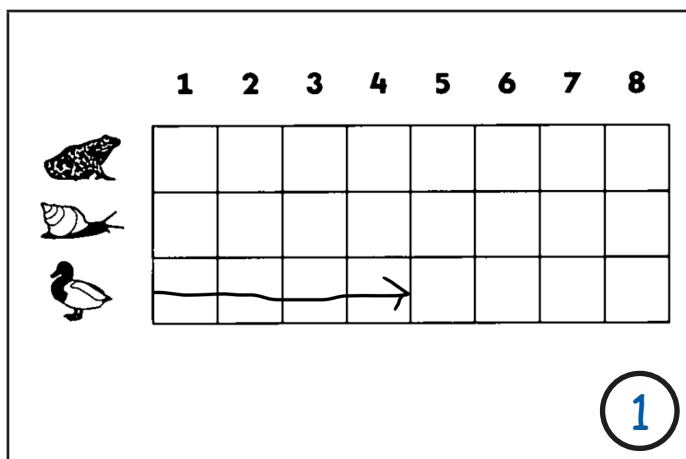
0

Theo has unambiguously indicated the correct four blocks. Although there is a slight inaccuracy in Theo's shading, his intention to shade only four blocks is clear. Theo is awarded **ONE mark**.

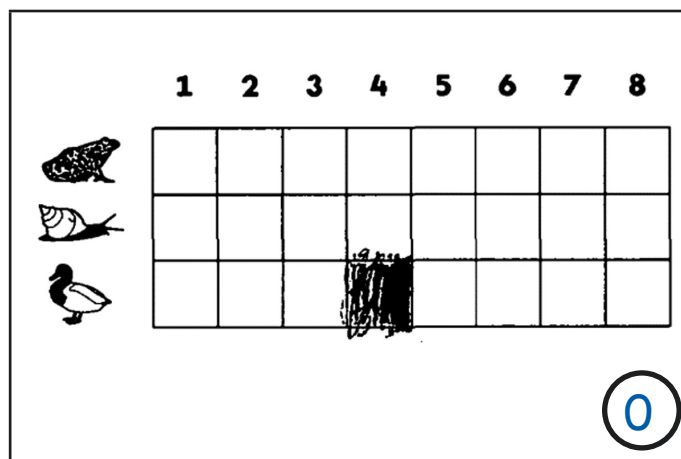
In comparison, Oscar has shaded the blocks with some overlaps. It is not clear whether Oscar's intention is to shade four blocks or five, making his response ambiguous. As a result, Oscar is awarded **no marks**.

9.1 Examples of responses from question 7 (continued)

Olivia: 1 mark



James: 0 marks



Olivia and James have made different responses in completing the block chart.

Olivia has drawn an arrow indicating, unambiguously, four blocks in total. This is allowed and she is awarded **ONE** mark.

James has indicated the fourth block only. This is not condoned. Therefore, James is awarded **no** marks.

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9.2 Examples of responses from question 27

Matthew: 2 marks

Show your working

5 sandwiches

2

John: 1 mark

Show your working

18 sandwiches

1

Both Matthew and John have provided a final answer with no working.

Matthew has provided a correct final answer in the answer box. Although there is no evidence of a method, he is awarded **TWO marks** for the correct answer.

John has written 18 in the final answer box with no evidence of working. John is awarded **ONE mark** for evidence of a partial step correctly evaluated.

Amelia: 1 mark

Show your working

$9 \times 2 = 20$
 $24 - 20 = 4$

4 sandwiches

1

Ella: 0 marks

Show your working

4 sandwiches

0

Amelia and Ella have both shown different methods that lead to the same incorrect final answer.

Amelia has calculated her first step incorrectly, which has resulted in an arithmetic error of 20. She then completes her method using that number. Although her final answer is incorrect, her method is complete and correct. Amelia is awarded **ONE mark**.

In contrast, Ella's pictorial method is not correct. She has written an incorrect answer of 4 in the answer box; therefore, she is awarded **no marks**.

9.2 Examples of responses from question 27 (continued)

Thandi: 1 mark

Thandi's response shows the equation $9 \times 2 = 18$ written in a box. To the left of the box is a label "Show your working". Below the equation, the number 5 is written in a box with the word "sandwiches" next to it. A blue circle with the number 1 is at the bottom right corner.

Alyssa: 1 mark

Alyssa's response shows a jump strategy. It starts with the number 18. Above it are three jumps of 2, each labeled "+2". The jumps lead to 20, then 22, and finally 24. Below the jumps, the numbers 18, 20, 22, and 24 are written. To the left of the jumps is a label "Show your working". Below the jumps, the number 18 is written in a box with the word "sandwiches" next to it. A blue circle with the number 1 is at the bottom right corner.

Thandi and Alyssa have shown different methods in answering the problem.

Thandi's final answer of 5 is incorrect. In her working she has not provided a complete, correct method but has completed correctly a partial step of $9 \times 2 = 18$. Thandi is awarded **ONE mark** for a partial step completed correctly.

Alyssa has provided a final answer of 18. In her working, Alyssa has shown a complete, correct method but has selected the wrong value for her final answer. However, even though Alyssa has not evaluated her three jumps of two, she is awarded **ONE mark** for a complete, correct method.

Note: If Alyssa's method was not complete and correct, she would have been awarded a mark for sight of 18.

Georgia: 1 mark

Georgia's response shows 24 shapes drawn in a box. The first two rows have 6 shapes each, and the last two rows have 3 shapes each. The first 18 shapes are crossed out with an 'X'. To the left of the shapes is a label "Show your working". Below the shapes, the number 8 is written in a box with the word "sandwiches" next to it. A blue circle with the number 1 is at the bottom right corner.

Cameron: 0 marks

Cameron's response shows 24 circles drawn in a box. The first two rows have 6 circles each, and the last two rows have 6 circles each. The first 19 circles are crossed out with an 'X'. To the left of the circles is a label "Show your working". Below the circles, the number 8 is written in a box with the word "sandwiches" next to it. A blue circle with the number 0 is at the bottom right corner.

Georgia and Cameron have both used a pictorial method in solving the problem. Georgia has drawn 24 shapes and has correctly crossed out 18 of those shapes. Georgia has miscounted and her final answer of 8 is incorrect, but Georgia's method is complete and correct. Therefore, Georgia is awarded **ONE mark**.

In contrast, Cameron's final answer of 8 is incorrect. He has correctly drawn 24 circles to represent the number of sandwiches and has crossed out 19 of the circles rather than 18. His method is not correct; therefore, he is awarded **no marks**.

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9.3 Examples of responses from question 29

Zara: 2 marks

Show your working

$$32 + 47 = 79$$

$$100 - 79 = 21$$

12 grams

2

Imran: 0 marks

Show your working

12 grams

0

Both Zara and Imran have given the same final answer of 12 in the answer box. In Zara's response, she has provided a complete, correct method with the final answer in her working as 21. Subsequently, Zara has then written 12 in the answer box, which is a transposition of 21. She is awarded **TWO marks** because 21 can be seen as her intended answer in her working.

Imran has not provided any evidence of a method and has written 12 as his answer; therefore, he is awarded **no marks**.

Alice: 1 mark

Show your working

$$79 \quad 100 - 79 =$$

grams

1

Maria: 1 mark

Show your working

$$79 + 10 + 10 + 1$$

79g 99g 100g

11 grams

1

Alice and Maria have used two different, complete, correct methods in answering the question. In her method, Alice has made a correct step unseen to reach 79. She then goes on to subtract 79 from 100 without providing a final answer. Alice can be awarded **ONE mark** for a complete, correct method with no final answer provided.

Note: If Alice's method was not complete and correct, she would have been awarded the mark for sight of 79.

Similarly, Maria has made a correct step unseen and has used a number line to count on to 100. Maria has made the correct number of jumps to 100, but has made an error when adding her jumps and totalled 11 instead of 21. Therefore, she is awarded **ONE mark** for a complete, correct method.

Note: If Maria's method was not complete and correct, she would have been awarded the mark for sight of 79.

9.3 Examples of responses from question 29 (continued)

Azad: 1 mark

Show your working

68 grams

1

Hugo: 1 mark

Show your working

32 + 47 = 79

79 grams

1

Azad and Hugo have both been awarded **ONE mark** for a first step completed correctly.

Azad has provided a pictorial method. Although he has shown pictorially the combined correct weights of the card, gift and letter, Azad has provided the correct answer of 68 for a partial step and is awarded **ONE mark**.

In contrast, Hugo has correctly evaluated the first step, $32 + 47 = 79$. Although he has not completed his method, Hugo is awarded **ONE mark** for sight of 79 as evidence of a partial method completed correctly.

Dylan: 1 mark

Show your working

32 + 47 = 89

31 grams

1

Michael: 1 mark

Show your working

32 + 47 = 78

78 + 22 = 100

22 grams

1

Both Dylan and Michael have provided complete, correct methods to show how they counted on from their incorrect first step.

Dylan made an arithmetic error in his first step, and in his next step he added 31 tallies to 69 to complement to 100. Therefore, Dylan is awarded **ONE mark** for a complete, correct method.

Michael also made an arithmetic error in his first step. He then went on to write out his next step, $78 + 22 = 100$. Although Michael has not shown where the 22 has come from, it complements correctly to 100, which completes his method.

Michael is awarded **ONE mark** for a complete, correct method.

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