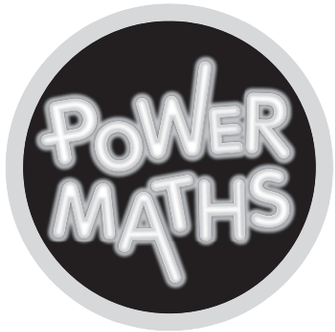

Year group:	2
Type of test:	End of Half Term
Term:	Autumn 1
Test content:	Arithmetic
Power Maths topic:	Book 2A, Units 1–3

Q	ANSWER	MARK	INCORRECT ANSWERS AND MISCONCEPTIONS	EVIDENCE OF GREATER DEPTH
1	**3**	1	**Possible incorrect answer 7 (An answer like this may suggest children have added 3 and 4 to get 7)** Children may calculate both sides of the number sentence rather than making links between the numbers on both sides. This topic is covered in Unit 2, Lessons 1–2.	Children can compare addition and subtraction statements without working out the calculations and use this understanding to work out missing numbers to satisfy particular equalities and inequalities.
2	**5**	1	**Possible incorrect answer 25 (A mistake like this may suggest children have added the 2 numbers)** Children may find it confusing to find the missing value when it is within a number sentence. They may not understand that they need to subtract to find the missing value in an addition sum. This topic is covered in Unit 1, Lesson 9.	Children can count reliably forwards and backwards in steps of 2, 5 and 10.

Q	ANSWER	MARK	INCORRECT ANSWERS AND MISCONCEPTIONS	EVIDENCE OF GREATER DEPTH
3	**19**	1	**Possible incorrect answer 18 (An answer like this may suggest children have included the 14 when counting on 5)** This topic is covered in Unit 2, Lesson 6.	
4	**11**	1	**Possible incorrect answer 19 (An answer like this may suggest children have added the two numbers)** Children may have more trouble counting backwards than forwards. This topic is covered in Unit 2, Lesson 6.	Children can relate each number in a calculation to what it represents within a context.
5	**27**	1	**Possible incorrect answers 18, 170 (An answer like this may suggest children have added the two numbers in the wrong columns)** Children may add or subtract to or from the ones digit rather than the tens digit of a number. This topic is covered in Unit 2, Lesson 7.	Children can mentally add or subtract 10 to or from a 2-digit number (staying within 100). They can identify that only the digit in the tens column changes during this process.
6	**17**	1	**Possible incorrect answer 77 (An answer like this may suggest children have added the two numbers)** Children may have more trouble counting backwards than forwards. This topic is covered in Unit 2, Lesson 8.	Children can relate each number in a calculation to what it represents within a context.
7	**15**	1	**Possible incorrect answer 735 (An answer like this may suggest children have simply written the three numbers in order)** Children may think the numbers have to be added in the order in which they are given. This topic is covered in Unit 3, Lesson 7.	Children can use their knowledge of number bonds to make decisions regarding the order in which to complete mental addition. Children understand that the order does not affect the final total.

Q	ANSWER	MARK	INCORRECT ANSWERS AND MISCONCEPTIONS	EVIDENCE OF GREATER DEPTH
8	**77**	1	**Possible incorrect answers 59, 95 (An answer like this may suggest children have placed the digits in incorrect columns)** Children may confuse the values of the digits within a number. When using the column method, children may have difficulty setting out the numbers. This topic is covered in Unit 3, Lesson 1.	Children can mentally add two 2-digit numbers in different ways and explain the merits of different methods. Children can use concrete manipulatives and pictorial representations to show their mental calculations and make links to previous answers to help calculate new ones where appropriate.
9	**26**	1	**Possible incorrect answer 50 (An answer like this may suggest children have added the two numbers)** Children may write the smaller number first when using the column method as they have learned that addition can be done in any order. Children may write the number that they subtract as the number that is left. Ensure children understand the problem's context to help them conceptualise subtraction. This topic is covered in Unit 3, Lesson 3–4.	Children may recognise that the process of subtraction is the opposite of addition and use addition to check that their answer is correct.
10	**£30**	1	**Possible incorrect answer £3 (A mistake like this may suggest children have added the tens digits as ones)** The inclusion of the pound sign may confuse children's understanding of place value. This topic is covered in Unit 1, Lesson 9.	Children can make links to previous learning and identify that only the digit in the tens column changes when they add a multiple of 10. Children can solve money problems and explain their solutions.
11	**40**	1	**Possible incorrect answer 100 (An answer like this may suggest children have added the two numbers)** Children may use the same method to check an answer as they used to find the answer in the first place. This topic is covered in Unit 2, Lesson 4.	Children can use subtraction to check an addition and vice versa. Children can use their understanding to explain their findings and identify more than one way to check their original calculation.

Q	ANSWER	MARK	INCORRECT ANSWERS AND MISCONCEPTIONS	EVIDENCE OF GREATER DEPTH
12	**25**	1	**Possible incorrect answer 35 (An answer like this may suggest children have added the two numbers)** When counting back in 5s, children may be unsure which ten comes next, especially with higher numbers with which they are less familiar. This topic is covered in Unit 2, Lesson 6.	Children can use subtraction to check an addition and vice versa. Children can use their understanding to explain their findings and identify more than one way to check their original calculation.
13	**54**	1	**Possible incorrect answer 468 (An answer like this may suggest children have added the tens and grouped the units)** **Possible incorrect answer 414 (An answer like this may suggest children have ignored place value)** Children may simply find the total number of ones, rather than exchanging. **Possible incorrect answer 44 (An answer like this may suggest children have forgotten to regroup 10 units as one ten)** Children may attempt to exchange, but then forget to add on the additional ten when finding the final total. This topic is covered in Unit 3, Lesson 2.	Children can mentally add two 2-digit numbers in different ways, where exchange is required, and explain the merits of different methods. Children can use concrete manipulatives and pictorial representations to show their mental calculations and make links to previous answers to help calculate new ones where appropriate.

Q	ANSWER	MARK	INCORRECT ANSWERS AND MISCONCEPTIONS	EVIDENCE OF GREATER DEPTH
14	**44**	1	**Possible incorrect answer 82 (An answer like this may suggest children have added the two numbers)** **Possible incorrect answer 56 (An answer like this may suggest children have swapped the 3 and the 9 to find 69 – 13)** Children may think the commutative property of addition problems can be applied to subtractions. When subtracting, children may swap the numbers and subtract the smaller number of ones from the larger. This topic is covered in Unit 3, Lesson 5–6.	Children can explain what they have done using concrete resources in combination with mental calculations.

Mark range	Level
0 – 3	Below
4 – 6	Towards
7 – 9	Expected
10 – 11	Secure
12 – 13	Towards greater depth
14	Greater depth