

Summer Test 1



Teacher guidance

Skills and knowledge needed for this test:

- Addition and subtraction of two numbers with more than four digits
- Addition and subtraction of whole numbers and mixed decimals
- Addition and subtraction of fractions with multiples of the same denominator
- Complements of 1
- Square and cube numbers
- Multiplication and division of whole numbers and decimals by 10, 100 and 1000
- Formal written method for short multiplication and short division with decimal remainders
- Formal written method for long multiplication and long division by a two-digit number
- Multiplication of pairs of simple fractions
- Finding fractions and percentages of amounts
- Missing number calculations, including balanced calculations, with all four operations
- Calculations with brackets

New: The order of operations (BIDMAS)

A teaching suggestion

- Step 1** Provide a cartoon character and introduce it to the children as 'BIDMAS'. Explain that BIDMAS is going to use his or her name to help them with some tricky calculations.
- Step 2** Display the word 'BIDMAS'. Work through the meaning of each letter of the name (brackets, indices, division and multiplication, addition and subtraction), explaining that when a sum has more than one operation this is the order in which they must be completed. Brackets are completed first, then indices, then multiplication and division (in any order) and, lastly, addition and subtraction (again, in any order).
- Step 3** Display $3 + 4 \times 3 =$ and then work through the calculation in the order it is written ($3 + 4 \times 3 = 7 \times 3 = 21$), and then in the order according to BIDMAS ($3 + 4 \times 3 = 3 + 12 = 15$). Emphasise that only one of these is correct, and that it is the one solved using BIDMAS.
- Step 4** Display:
 $(40 - 4) \div 2^2 + 7 \times 3$ Work through it using BIDMAS.
 $(40 - 4) \div 2^2 + 7 \times 3$ (Do the brackets first ...)
 $= 36 \div 2^2 + 7 \times 3$ (... the indices next ...)
 $= 36 \div 4 + 7 \times 3$ (... then multiplication and division in any order ...)
 $= 9 + 21$ (... then addition and subtraction in any order ...)
 $= 30$ (... and you get the answer.)
- Step 5** Complete lots of examples with the children. Then ask them to work with a partner to complete similar examples before trying the work independently. Ensure children understand that if a calculation contains operators of equal precedence they can be done in any order. For example $28 - 35 + 16$ does not mean that 35 must be subtracted from 28 before 16 is added.

Question number	Question	Answer	Marks	Related test
1	$14 \times 0 = \square$	0	1	Y4 Autumn Test 4
2	$7^2 = \square$	49	1	Y5 Autumn Test 4
3	$1 - 0.7 = \square$	0.3	1	Y5 Summer Test 4
4	$210 \times \square = 210\,000$	1000	1	Y5 Autumn Test 5, Y4 Autumn Test 3
5	$7 = 35 \div \square$	5	1	Y4 Autumn Test 3, Y4 Spring Test 6
6	$4896 \div 9 = \square$	544	1	Y5 Spring Test 5
7	$\square \times 10 = 29 + 31$	6	1	Y6 Autumn Test 4
8	$\frac{4}{5} + \frac{1}{10} = \square$	$\frac{9}{10}$ (or equiv)	1	Y5 Spring Test 6
9	$\square = (14 + 8) \div 11$	2	1	Y6 Spring Test 1
10	$\frac{1}{2} \times \frac{1}{3} = \square$	$\frac{1}{6}$ (or equiv)	1	Y6 Spring Test 2
11	$864.233 \div 100 = \square$	8.64233	1	Y6 Spring Test 3
12	$\frac{5}{4} + \frac{5}{8} = \square$	$1\frac{7}{8}$ (or equiv)	1	Y6 Autumn Test 2
13	$6 + 4 \times 2 = \square$	14	1	Y6 Summer Test 1
14	$\frac{5}{8}$ of 32 = \square	20	1	Y6 Autumn Test 3
15	$\square = 30\%$ of 120	36	1	Y6 Spring Test 5
16	$6 \times \square = 8958$	1493	1	Y5 Spring Test 5, Y4 Autumn Test 3
17	$7 + 6 \div (3 \times 2) = \square$	8	1	Y6 Summer Test 1
18	$73648 + 976 - 2785 = \square$	71 839	1	Y6 Summer Test 1, Y5 Spring Test 4
19	$5 = 6480 \div \square$	1296	1	Y5 Spring Test 5, Y4 Autumn Test 3
20	$7005 - \square = 1657$	5348	1	Y5 Autumn Test 3, Y5 Autumn Test 1
21	$585 \div 4 = \square$	146.25	1	Y6 Spring Test 6
22	$\square = 5\%$ of 80	4	1	Y6 Spring Test 5
23	$6 + 3 \times (3 - 1) = \square$	12	1	Y6 Summer Test 1
24	$17.3 - 9.725 + 8.6 = \square$	16.175	1	Y6 Autumn Test 5, Y6 Summer Test 1
25	$7665 \div 35 = \square$	219	2*	Y6 Autumn Test 6
26	$16 = \square + 2.815$	13.185	1	Y6 Autumn Test 5, Y5 Autumn Test 1
27	$9384 \times 27 = \square$	253 368	2*	Y6 Spring Test 4
28	$872 \div 5 = \square$	174.4	1	Y6 Spring Test 6
Total marks			30	

* award 1 mark if there is one error in the working