



# Summer Test 5

## Teacher guidance

### Skills and knowledge needed for this test:

- Complements of 1
- Addition and subtraction of numbers with different numbers of digits, including decimals
- Addition and subtraction of fractions with multiples of the same denominator
- Multiplication and division to  $12 \times 12$  including derivatives of multiples of 100
- Multiplication by 0; multiplication and division by 1; square and cube numbers
- Multiplication of three numbers
- Multiplication of up to four digits by a single-digit or a two-digit number
- Division of a four-digit number by a single-digit number, including with remainders
- Multiplication and division of whole numbers or decimals by 10, 100 or 1000
- Finding fractions of amounts
- Missing number statements with all four operations

## New: Balanced calculations

### A teaching suggestion

**Step 1** Discuss the meaning of the = sign. Establish that whatever is on one side of the sign needs to be equivalent in value to whatever is on the other side. Show them a pair of balance scales and demonstrate by getting five identical objects and putting three on one side and two on the other. The scales are not balanced; they are not equal.

**Step 2** Display  $3 + 6 = 5 + \square$ . Clearly  $3 + 6$  does not equal 5, so this sum does not yet balance. Something needs to be done to the 5. Ask the children to solve the problem, and then display the completed calculation  $3 + 6 = 5 + 4$ .

**Step 3** Complete several examples together and then start to move the position of the missing number. The position that causes most errors is  $10 - 6 = \square + 2$ . Explain that people who do not understand these calculations put  $10 - 6 = 4 + 2$ . Ask the children if they can spot the error and explain why it has happened.

**Step 4** Solve together  $10 - 6 = \square + 2$ . Since  $10 - 6 = 4$  then  $\square + 2$  must also equal 4, so the missing number is 2.

**Step 5** Work through lots of examples with the children, and then allow them to work with a partner before trying the calculations independently.

Question number	Question	Answer	Marks	Related test
1	$0 \times 14 = \square$	0	1	Y4 Autumn Test 4
2	$\square = 21 \div 1$	21	1	Y4 Autumn Test 6
3	$\frac{1}{8}$ of 32 = $\square$	4	1	Y5 Summer Test 3
4	$1 = 0.3 + \square$	0.7	1	Y5 Summer Test 4
5	$6400 \div 10 = \square$	640	1	Y5 Autumn Test 5
6	$12 \times 9 = \square$	108	1	Y4 Spring Test 2, Y4 Summer Test 2
7	$\square + 0.8 = 1$	0.2	1	Y5 Summer Test 4
8	$6^2 = \square$	36	1	Y5 Autumn Test 4
9	$2 + 7 = 5 + \square$	4	1	Y5 Summer Test 5
10	$\frac{1}{3} + \frac{2}{9} = \square$	$\frac{5}{9}$ (or equiv)	1	Y5 Spring Test 6
11	$731 - 536 = \square$	195	1	Y4 Spring Test 3
12	$\square = 132 \div 11$	12	1	Y4 Autumn Test 5
13	$438 = 6 \times \square$	73	1	Y5 Spring Test 3, Y4 Autumn Test 3
14	$639 - 62 = \square$	577	1	Y5 Spring Test 4
15	$4 \times 5 = 25 - \square$	5	1	Y5 Summer Test 5
16	$2843 \times 8 = \square$	22 744	1	Y5 Spring Test 3
17	$\square = 29.2 - 3.44$	25.76	1	Y5 Summer Test 1
18	$3912 \div 6 = \square$	652	1	Y5 Spring Test 5
19	$\frac{4}{5}$ of 60 = $\square$	48	1	Y5 Summer Test 3
20	$423.8 \times 1000 = \square$	423 800	1	Y5 Spring Test 2
21	$\frac{3}{4} - \frac{5}{16} = \square$	$\frac{7}{16}$ (or equiv)	1	Y5 Spring Test 6
22	$\square - 2 = 6 \times 3$	20	1	Y5 Summer Test 5
23	$72 \times 33 = \square$	2376	2*	Y5 Summer Test 2
24	$\square^3 = 125$	5	1	Y5 Spring Test 1
25	$73 + 84.72 = \square$	157.72	1	Y5 Summer Test 1
26	$735 - \square = 444$	291	1	Y4 Spring Test 3, Y3 Autumn Test 1
27	$\square = 5000 - 2432$	2568	1	Y5 Autumn Test 3
28	$289 \times 46 = \square$	13 294	2*	Y5 Summer Test 2
<b>Total marks</b>			<b>30</b>	

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