

# Summer Test 3

## Teacher guidance

### Skills and knowledge needed for this test:

- 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 of three numbers
- Multiplication by 0; multiplication and division by 1; square and cube 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
- Missing number statements with all four operations



## New: Finding fractions of amounts

### A teaching suggestion

- Step 1** Show the children a circle and tell them you are going to colour  $\frac{3}{8}$  of the circle. Demonstrate how to start by dividing the circle into eighths, and then colour three of the eighths.
- Step 2** Repeat with other fractions (e.g. for  $\frac{5}{6}$  divide the shape into sixths and then colour five of the sixths).
- Step 3** When the children are confident, use a number instead of a shape. Find  $\frac{3}{8}$  of 40. Start by dividing 40 into eighths:  $40 \div 8 = 5$ . So each eighth is worth 5 and we want three of them.  $5 \times 3 = 15$ , so  $\frac{3}{8}$  of 40 = 15.
- Step 4** Emphasise that this means there are two steps to the calculation: first they divide and then they multiply (e.g.  $\frac{2}{5}$  of 30 is  $30 \div 5 = 6$ , then  $6 \times 2 = 12$ ).
- Step 5** Work through lots of examples together until the children understand the process.
- Step 6** Introduce the chant: 'Divide by the bottom and times by the top!'. This is a good process aid to use once the children understand fully what is happening in the calculation.
- Step 7** Complete lots of examples with the children. Allow them to work with a partner before trying the work independently.

Question number	Question	Answer	Marks	Related test
1	$7 + 1 = \square$	7	1	Y4 Autumn Test 6
2	$48 + 12 = \square$	4	1	Y4 Summer Test 2
3	$\square = 4 \times 11$	44	1	Y4 Autumn Test 5
4	$30 \times 0 = \square$	0	1	Y4 Autumn Test 4
5	$9000 + 10 = \square$	900	1	Y5 Autumn Test 5
6	$50 = 17 + \square$	33	1	Y5 Autumn Test 1, Y5 Autumn Test 3
7	$\frac{1}{6}$ of 12 = $\square$	2	1	Y5 Summer Test 3
8	$\square = 514 - 168$	346	1	Y4 Spring Test 3
9	$\frac{1}{5} + \frac{3}{10} = \square$	$\frac{5}{10}$ (or equiv)	1	Y5 Spring Test 6
10	$10^2 = \square$	1000	1	Y5 Spring Test 1
11	$30 = \square \times 6$	5	1	Y4 Autumn Test 3, Y4 Spring Test 4
12	$9^2 = \square$	81	1	Y5 Autumn Test 4
13	$\frac{1}{3}$ of 25 = $\square$	15	1	Y5 Summer Test 3
14	$\square = 700 - 263$	437	1	Y5 Autumn Test 3
15	$5358 + 48 = \square$	5406	1	Y5 Spring Test 4
16	$\square \times 70 = 490$	7	1	Y4 Autumn Test 3, Y4 Summer Test 5
17	$17.25 - 8.36 = \square$	8.89	1	Y5 Summer Test 1
18	$4156 \times 5 = \square$	20 780	1	Y5 Spring Test 3
19	$\frac{4}{7}$ of 56 = $\square$	32	1	Y5 Summer Test 3
20	$\square = 3.642 \times 10$	36.42	1	Y5 Spring Test 2
21	$\frac{2}{5} - \frac{4}{15} = \square$	$\frac{6}{15}$ (or equiv)	1	Y5 Spring Test 6
22	$7328 + 8 = \square$	916	1	Y5 Spring Test 5
23	$67 + 7.3 = \square$	74.3	1	Y5 Summer Test 1
24	$\frac{5}{9}$ of 198 = $\square$	110	1	Y5 Summer Test 3
25	$326 \times 16 = \square$	5216	2*	Y5 Summer Test 2
26	$50 \times 273 \times 2 = \square$	27 300	1	Y4 Summer Test 3
27	$386 = \square - 473$	859	1	Y4 Spring Test 1, Y5 Autumn Test 1
28	$647 \times 82 = \square$	53 054	2*	Y5 Summer Test 2
<b>Total marks</b>			<b>30</b>	

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