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 × 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	$7 \div 1 = \square$	7	1	Y4 Autumn Test 6
2	$48 \div 12 = \square$	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	$9000 \div 10 = \square$	900	1	Y5 Autumn Test 5
6	$50 = 17 + \square$	33	1	Y3 Autumn Test 1, Y3 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	$10^3 = \square$	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	$\frac{3}{5}$ 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	$\frac{2}{3} - \frac{4}{15} = \square$	$\frac{6}{15}$ (or equiv)	1	Y5 Spring Test 6
22	$7328 \div 8 = \square$	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, Y3 Autumn Test 1
28	$647 \times 82 = \square$	53 054	2*	Y5 Summer Test 2
	Total marks		**30**	

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