Summer Test 3

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 different denominators
- 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 and the order of operations (BIDMAS)

New: Addition and subtraction of fractions and mixed numbers

A teaching suggestion

Step 1 Display $4\frac{5}{7} + 2\frac{5}{9} =$

Step 2 Explain that the children are going to complete this calculation in three stages.
i) Add the whole numbers. $4 + 2 = 6$
ii) Add the fractions. $\frac{5}{7} + \frac{5}{9} = ?$

Step 3 To complete this calculation we need the fractions to have the same denominator. The easiest way to do this is to find the smallest number that is in both the seven and nine times tables (i.e. the lowest common multiple). Since the lowest common multiple of 7 and 9 is 63, use equivalent fractions:

$$\frac{5}{7} + \frac{5}{9} = \frac{45}{63} + \frac{35}{63} = \frac{80}{63} = 1\frac{17}{63}$$

Step 4 iii) Add the two answers. **Emphasise that the answer must be written as a mixed number.**

$$6 + 1\frac{17}{63} = 7\frac{17}{63}$$

Step 5 Complete lots of examples with the children, and then let them work with a partner before trying independent work.

Question number	Question	Answer	Marks	Related test
1	$8^2 = \square$	64	1	Y5 Autumn Test 4
2	$45 = 5 \times \square$	9	1	Y4 Autumn Test 3, Y2 Spring Test 5
3	$\square + 0.4 = 1$	0.6	1	Y5 Summer Test 4
4	$\frac{5}{12} + \frac{1}{6} = \square$	$\frac{7}{12}$ (or equiv)	1	Y5 Spring Test 6
5	$20 \times 1000 = \square$	20 000	1	Y5 Autumn Test 5
6	$9 = \square \div 8$	72	1	Y4 Autumn Test 3, Y4 Spring Test 2
7	$9173 \times 7 = \square$	64 211	1	Y5 Spring Test 3
8	$\square \times 4 = 3176$	794	1	Y5 Spring Test 5, Y4 Autumn Test 3
9	$(8 - 1) \times (3 + 2) = \square$	35	1	Y6 Spring Test 1
10	$6 \times 6 = \square - 6$	42	1	Y6 Autumn Test 4
11	$\frac{7}{3} + \frac{5}{6} = \square$	$3\frac{1}{6}$ (or equiv)	1	Y6 Autumn Test 2
12	$\square = 0.03 \div 10$	0.003	1	Y6 Spring Test 3
13	$748 + 38\,295 - 6410 = \square$	32 633	1	Y5 Spring Test 4
14	$2\frac{1}{3} + 1\frac{1}{3} = \square$	$3\frac{2}{3}$	1	Y6 Summer Test 3
15	$\frac{7}{8}$ of $64 = \square$	56	1	Y6 Autumn Test 3
16	$\square \div 4 = 1634$	6536	1	Y5 Spring Test 3, Y4 Autumn Test 3
17	$\frac{1}{2} \times \frac{3}{7} = \square$	$\frac{3}{14}$ (or equiv)	1	Y6 Spring Test 2
18	$248.3 - 9.778 = \square$	238.522	1	Y6 Autumn Test 5
19	$1\frac{3}{4} + \frac{3}{4} = \square$	$2\frac{1}{2}$	1	Y6 Summer Test 3
20	$20 - 3 \times (4 + 2) = \square$	2	1	Y6 Summer Test 1
21	$\square$ = 15% of 280	42	1	Y6 Spring Test 5
22	$865 \div 8 = \square$	108.125	1	Y6 Spring Test 6
23	$\frac{1}{2} - \frac{1}{9} = \square$	$\frac{7}{18}$ (or equiv)	1	Y6 Summer Test 2
24	$9000 - \square = 3581$	5419	1	Y5 Autumn Test 3, Y3 Autumn Test 1
25	$\square = \frac{1}{4} + \frac{1}{5}$	$\frac{9}{20}$ (or equiv)	1	Y6 Summer Test 2
26	$4\frac{1}{5} - 2\frac{3}{5} = \square$	$1\frac{3}{5}$ (or equiv)	1	Y6 Summer Test 3
27	$6765 \div 41 = \square$	165	2*	Y6 Autumn Test 6
28	$8477 \times 53 = \square$	449 281	2*	Y6 Spring Test 4
		Total marks	**30**	

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