Spring Test 6

Teacher guidance

30 minutes

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 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: Division giving the answer to two decimal places

A teaching suggestion

Step 1 Display $137 \div 4$ and then set out the sum for formal division. Explain that the children are going to learn to write remainders as a decimal.

Step 2 First ask: 'How many fours in 1 (hundred)?'. Agree there are none and ask: 'How many fours in 13 (tens)?'. Agree that there are 3 (tens) and 1 left over. Write this in, demonstrating where to write the answers.

$$4 \overline{)1\,3\,{}^1 7} \quad {}^3$$

Step 3 Now ask: 'How many fours in 17?'. Agree that there are 4 fours and 1 left over. Write in the answer and explain that the remainder will be written as a decimal. Write '. 0' after the number and put the remainder 1 by it.

$$4 \overline{)1\,3\,{}^1 7\,.\,{}^1 0} \quad {}^{3\ 4}$$

Step 4 Demonstrate how to put a decimal point above the answer line too, and continue with the calculation. Fours into 10 go two with 2 left over, which then needs another zero to be inserted. Complete the calculation.

$$4 \overline{)1\,4\,{}^1 7\,\cdot\,{}^1 0\,{}^2 0} \quad {}^{3\ 4\ .\ 2\ 5}$$

Step 5 Ask the children for another way to write 0.25 and agree that it is equivalent to $\frac{1}{4}$, so the answer can be written as 34.25 (to two decimal places) or as $34\frac{1}{4}$. **Emphasise that remainders should now be calculated as decimals.**

Step 6 Complete lots of examples with the children, and then encourage them to work with a partner to complete similar examples before trying the work independently.

Question number	Question	Answer	Marks	Related test
1	$11^2 = \square$	121	1	**Y5 Autumn Test 4**
2	$4 \times \square = 32$	8	1	Y4 Autumn Test 3, Y3 Spring Test 4
3	$0.1 + \square = 1$	0.9	1	Y5 Summer Test 4, Y3 Autumn Test 1
4	$\square \div 100 = 40$	4000	1	Y5 Autumn Test 5, Y4 Autumn Test 3
5	$6 = 24 \div \square$	4	1	Y4 Autumn Test 3, Y4 Spring Test 4
6	$6682 \times 8 = \square$	53 456	1	**Y5 Spring Test 3**
7	$\square^3 = 64$	4	1	**Y5 Spring Test 1**
8	$50 - 30 = \square \div 2$	40	1	**Y6 Autumn Test 4**
9	$\square = 10\%$ of 200	20	1	**Y6 Spring Test 5**
10	$\frac{8}{9} - \frac{2}{3} = \square$	$\frac{2}{9}$ (or equiv)	1	**Y5 Spring Test 6**
11	$25 \div (7 - 5) = \square$	5	1	**Y6 Spring Test 1**
12	$\frac{3}{10} \times \frac{1}{5} = \square$	$\frac{3}{50}$ (or equiv)	1	**Y6 Spring Test 2**
13	$0.012 \times 10 = \square$	0.12	1	**Y6 Spring Test 3**
14	$\frac{2}{7}$ of $70 = \square$	20	1	**Y6 Autumn Test 3**
15	$\square = \frac{16}{7} - \frac{3}{14}$	$2\frac{1}{14}$ (or equiv)	1	**Y6 Autumn Test 2**
16	$387 \div 2 = \square$	193.5	1	**Y6 Spring Test 6**
17	$5000 - 2145 = \square$	2855	1	**Y5 Autumn Test 3**
18	$4.7 + 26.28 + 158.34 = \square$	189.32	1	**Y6 Autumn Test 5**
19	$\square = 3960 \div 8$	495	1	**Y5 Spring Test 5**
20	$273\,485 - 89\,916 = \square$	183 569	1	**Y5 Spring Test 4**
21	$8214 = \square \times 3$	2738	1	Y5 Spring Test 5, Y4 Autumn Test 3
22	$674 \div 4 = \square$	168.5	1	**Y6 Spring Test 6**
23	15% of $480 = \square$	72	1	**Y6 Spring Test 5**
24	$\square \div 3 = 784$	2352	1	Y5 Spring Test 3, Y4 Autumn Test 3
25	$1293 = 7000 - \square$	5707	1	Y5 Spring Test 3, Y3 Autumn Test 1
26	$6187 \div 23 = \square$	269	2*	**Y6 Autumn Test 6**
27	$2427 \times 88 = \square$	213 576	2*	**Y6 Spring Test 4**
28	$7321 \div 8 = \square$	915.125	1	**Y6 Spring Test 6**
		Total marks	**30**	

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