



# Autumn Test 5

## Teacher guidance

### Skills and knowledge needed for this test:

- Addition and subtraction of two numbers with more than four digits
- 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 of up to three digits by a two-digit number
- Finding fractions of amounts
- Missing number calculations, including balanced calculations, with all four operations

## Review: Addition and subtraction of whole numbers and mixed decimals

### A teaching suggestion

**Step 1** Review the addition of two whole numbers with a different number of digits. Establish that the ones need to be added together, then the tens and so on, so the numbers need to be in the correct columns. For example:

$$\begin{array}{r} 794 \\ + 84566 \\ \hline \end{array}$$

**Step 2** Display  $45.75 + 8.9$  and discuss how this needs to be set out. Establish that the tenths and ones need to be added together, so the numbers need to be in the correct columns, and write this up.

$$\begin{array}{r} 45.75 \\ + 8.9 \\ \hline \end{array}$$

**Step 3** Note how the decimal points are lined up. To avoid confusion, fill in the gaps with zeros.

$$\begin{array}{r} 45.75 \\ + 08.90 \\ \hline \end{array}$$

**Step 4** Work through the calculation, emphasising that you start at the right and work to the left. Remind the children that, when numbers are greater than one digit, the number is written with the first digit in the next column so it still reads as the same number. Display the finished calculation.

$$\begin{array}{r} 45.75 \\ + 08.90 \\ \hline 54.65 \\ \hline \end{array}$$

**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	$\square = 20 \times 0$	0	1	Y4 Autumn Test 4
2	$2^2 = \square$	4	1	Y5 Autumn Test 4
3	$\square + 0.8 = 1$	0.2	1	Y5 Summer Test 4
4	$400 \div 10 = \square$	40	1	Y5 Autumn Test 5
5	$36 = \square^2$	6	1	Y5 Autumn Test 4
6	$5 = \square \div 8$	40	1	Y4 Autumn Test 3, Y3 Summer Test 3
7	$60 \times \square = 6000$	100	1	Y5 Autumn Test 5, Y4 Autumn Test 3
8	$89.32 \times 10 = \square$	893.2	1	Y5 Spring Test 2
9	$\square = \frac{2}{3}$ of 18	12	1	Y6 Autumn Test 3
10	$2 \times \square = 14 - 2$	6	1	Y6 Autumn Test 4
11	$6356 \div 8 = \square$	794 r4	1	Y5 Autumn Test 6
12	$27 = \square^3$	3	1	Y5 Spring Test 1
13	$\frac{5}{8} + \frac{1}{2} = \square$	$1\frac{1}{8}$ (or equiv)	1	Y6 Autumn Test 2
14	$\square = 700 - 524$	176	1	Y5 Autumn Test 3
15	$\frac{5}{7} + \frac{9}{14} = \square$	$1\frac{5}{14}$ (or equiv)	1	Y6 Autumn Test 2
16	$\frac{7}{10}$ of 40 = $\square$	28	1	Y6 Autumn Test 3
17	$\square - 4 = 5 \times 5$	29	1	Y6 Autumn Test 4
18	$73.4 \div 100 = \square$	0.734	1	Y5 Spring Test 2
19	$2493 \times 6 = \square$	14 958	1	Y5 Spring Test 3
20	$7172 \div 4 = \square$	1793	1	Y5 Spring Test 5
21	$3.42 + 46.9 = \square$	50.32	1	Y6 Autumn Test 5
22	$841 \times 16 = \square$	13 456	2*	Y6 Autumn Test 1
23	$\square = 23.28 - 7.9$	15.38	1	Y6 Autumn Test 5
24	$7062 - \square = 5183$	1879	1	Y5 Autumn Test 3, Y3 Autumn Test 1
25	$4131 = \square \times 3$	1377	1	Y5 Spring Test 5, Y4 Autumn Test 3
26	$5358 \div \square = 2$	2679	1	Y5 Spring Test 5, Y4 Autumn Test 3
27	$752684 + 379 + 58362 = \square$	811 425	1	Y5 Spring Test 4
28	$683 \times 76 = \square$	51 908	2*	Y6 Autumn Test 1
<b>Total marks</b>			<b>30</b>	

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