

# Autumn Test 2



## Teacher guidance

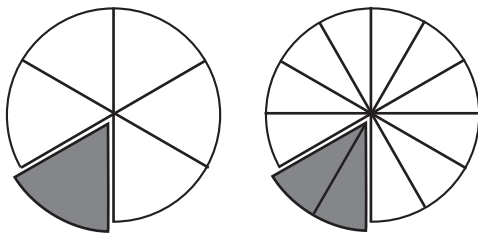
### Skills and knowledge needed for this test:

- Addition and subtraction of two numbers with more than four digits
- Addition and subtraction of fractions with 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
- Missing number calculations with all four operations

## Review: Addition and subtraction of fractions with multiples of the same denominator, giving the answer as a mixed number

### A teaching suggestion

**Step 1** Cut one circle into sixths and another into twelfths.



Compare the segments, demonstrating that two twelfths are the same as one sixth, four twelfths are the same as two sixths, and so on.

**Step 2** Hold up various sixth fractions and, on an agreed signal, ask the children to call out how many twelfths they represent.

**Step 3** When the children are confident, display:

$$\frac{1}{6} + \frac{11}{12} =$$

**Step 4** Hold one sixth in one hand and eleven twelfths in the other. Discuss the problem of adding them as they are not the same. Give the children an opportunity to discuss how to solve the problem. Agree that the one sixth can be changed for two twelfths.

$$\frac{1}{6} + \frac{11}{12} = \frac{2}{12} + \frac{11}{12} =$$

**Step 5** The twelfths are now straightforward to add, giving  $\frac{13}{12}$ . Exchange  $\frac{12}{12}$  for 1, giving  $1\frac{1}{12}$ .

**Emphasise that the answer should be written as a mixed number, not an improper fraction.**

**Step 6** Repeat lots of addition and subtraction examples together. Allow the children to work with a partner before working independently.

Question number	Question	Answer	Marks	Related test
1	$\square = 10 \times 0$	0	1	Y4 Autumn Test 4
2	$72 \div 1 = \square$	72	1	Y4 Autumn Test 6
3	$7^2 = \square$	49	1	Y5 Autumn Test 4
4	$1 = 0.6 + \square$	0.4	1	Y5 Summer Test 4
5	$8 \times 600 = \square$	4800	1	Y4 Summer Test 5
6	$3^3 = \square$	27	1	Y5 Spring Test 1
7	$\frac{3}{7} + \frac{12}{7} = \square$	$2\frac{1}{7}$ (or equiv)	1	Y6 Autumn Test 2
8	$\square^2 = 121$	11	1	Y5 Autumn Test 4
9	$40 \times 10 = \square$	400	1	Y5 Autumn Test 5
10	$63 = \square \times 9$	7	1	Y4 Autumn Test 3, Y4 Spring Test 2
11	$\frac{1}{2} - \frac{1}{4} = \square$	$\frac{1}{4}$ (or equiv)	1	Y5 Spring Test 6
12	$\square = 9.32 \times 100$	932	1	Y5 Spring Test 2
13	$\frac{5}{9} + \frac{2}{3} = \square$	$1\frac{2}{9}$ (or equiv)	1	Y6 Autumn Test 2
14	$20 \times \square = 2000$	100	1	Y5 Autumn Test 5, Y4 Autumn Test 3
15	$29.1 \div 10 = \square$	2.91	1	Y5 Spring Test 2
16	$36 \div \square = 9$	4	1	Y4 Autumn Test 3, Y4 Spring Test 2
17	$\frac{15}{4} - \frac{6}{8} = \square$	3 (or equiv)	1	Y6 Autumn Test 2
18	$8420 \div 5 = \square$	1684	1	Y5 Spring Test 5
19	$\square = 500 - 371$	129	1	Y5 Autumn Test 3
20	$2374 \times 7 = \square$	16 618	1	Y5 Spring Test 3
21	$836 \times 25 = \square$	20 900	2*	Y6 Autumn Test 1
22	$4 \times \square = 9324$	2331	1	Y5 Spring Test 5, Y4 Autumn Test 3
23	$1475 \div 6 = \square$	245 r5	1	Y5 Autumn Test 6
24	$801 - \square = 428$	373	1	Y5 Autumn Test 3, Y5 Autumn Test 1
25	$\square \div 614 = 7$	4298	1	Y5 Spring Test 3, Y4 Autumn Test 3
26	$66 + 78\ 628 + 519 = \square$	79 213	1	Y5 Spring Test 4
27	$4888 = \square - 3741$	8629	1	Y4 Spring Test 1, Y5 Autumn Test 1
28	$936 \times 75 = \square$	70 200	2*	Y6 Autumn Test 1
<b>Total marks</b>			<b>30</b>	

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