

# Summer 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 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 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 with different denominators

### A teaching suggestion

- Step 1** Cut one circle into halves and another into thirds. Compare the segments, establishing that halves and thirds do not match.
- Step 2** Display  $\frac{1}{2} + \frac{1}{3} =$
- Step 3** Challenge the children to find a way to make this calculation possible, and guide them towards the idea of using equivalent fractions. They already know that halves and thirds will not work, so get them to try matching the half and the third to cut-out quarters of the circle and agree that they do not match. Repeat this with cut-out fifths, again agreeing they do not match. Try with cut-out sixths, and agree that a half is three sixths and a third is two sixths.
- Step 4** Now hold three sixths in one hand and two sixths in the other.  

$$\frac{1}{2} + \frac{1}{3} = \frac{3}{6} + \frac{2}{6} =$$
- Step 5** The sixths are now straightforward to add, giving  $\frac{5}{6}$   
**Emphasise that, where applicable, the answer should be written as a mixed number, not as an improper fraction**
- Step 6** Repeat lots of addition and subtraction examples together using one quarter and one third, one fifth and one half and so on. Encourage the children to work with a partner before working independently.

Question number	Question	Answer	Marks	Related test
1	$702 \times 1 = \square$	702	1	Y4 Autumn Test 6
2	$121 = \square^2$	11	1	Y5 Autumn Test 4
3	$0.8 = \square - 0.2$	1	1	Y5 Summer Test 4
4	$7 \times \square = 49$	7	1	Y4 Autumn Test 3, Y4 Spring Test 6
5	$\square \times 1000 = 53\,000$	53	1	Y5 Autumn Test 5, Y4 Autumn Test 3
6	$\frac{1}{3} - \frac{2}{6} = \square$	0	1	Y5 Spring Test 6
7	$6 = 4200 \div \square$	700	1	Y4 Autumn Test 3, Y4 Summer Test 5
8	$5 \times (12 - 9) = \square$	15	1	Y6 Spring Test 1
9	$60 \div \square = 2 \times 6$	5	1	Y6 Autumn Test 4
10	$\frac{1}{10} \times \frac{3}{4} = \square$	$\frac{3}{40}$ (or equiv)	1	Y6 Spring Test 2
11	$\square = 1.9 \times 1000$	1900	1	Y6 Spring Test 3
12	$\frac{9}{5} - \frac{2}{15} = \square$	$1\frac{10}{15}$ (or equiv)	1	Y6 Autumn Test 2
13	$\frac{3}{5}$ of 35 = $\square$	21	1	Y6 Autumn Test 3
14	$3002 - 1405 = \square$	1597	1	Y5 Autumn Test 3
15	$5 - 2 \times 2 = \square$	1	1	Y6 Summer Test 1
16	$36.45 - 9.788 + 289 = \square$	315.662	1	Y6 Autumn Test 5, Y6 Summer Test 1
17	$\frac{1}{5} + \frac{1}{2} = \square$	$\frac{7}{10}$ (or equiv)	1	Y6 Summer Test 2
18	$6498 = \square \times 9$	722	1	Y5 Spring Test 5, Y4 Autumn Test 3
19	$73\,491 - 523 + 89 = \square$	73\,057	1	Y6 Summer Test 1, Y5 Spring Test 4
20	$7428 \div 5 = \square$	1485.6	1	Y6 Spring Test 6
21	$7 = \square \div 832$	5824	1	Y5 Spring Test 3, Y4 Autumn Test 3
22	$(6 + 2) \times 2^2 = \square$	32	1	Y6 Summer Test 1
23	35% of 60 = $\square$	21	1	Y6 Spring Test 5
24	$\square = \frac{1}{2} + \frac{1}{3}$	$\frac{5}{6}$ (or equiv)	1	Y6 Summer Test 2
25	$8171 \div 4 = \square$	2042.75	1	Y6 Spring Test 6
26	$8448 \div 16 = \square$	528	2*	Y6 Autumn Test 6
27	$\frac{1}{4} + \frac{1}{3} = \square$	$\frac{7}{12}$ (or equiv)	1	Y6 Summer Test 2
28	$3657 \times 91 = \square$	332\,787	2*	Y6 Spring Test 4
<b>Total marks</b>			<b>30</b>	

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