#### YEAR 6 ARITHMETIC PRACTICE TESTS

# **Spring 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 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 of amounts
- Missing number calculations, including balanced calculations, with all four operations
- Calculations with brackets

## New: Multiplication and division of decimals to three decimal places by 10, 100 or 1000

#### A teaching suggestion



Tell the children that they are going to learn about multiplication and division of numbers by 10, 100 and 1000. It is helpful to have a decimal point in a fixed position and digit cards that can be moved to illustrate the method.

Agree that, when multiplying by 10, 100 and 1000, the digits in the number move to the left, as the answer is bigger than the original number. When dividing by 10, 100 and 1000, the digits in the number move to the right to give an answer that is smaller than the original number.



Display 1346  $\div$  1000. Establish that the number will become 1000 times smaller. This means that the digits in the number move three columns to the right.

Move 1 = 134.6 Move 2 = 13.46 Move 3 = 1.346

Th HTO.th thbecomesTh HTO.th th1 3461.346



Display 5.6  $\div$  100. Establish that there are two moves and the division sign means the digits move to the right to make the number smaller. Move 1 = 0.56 Move 2 = 0.056

Th HTO.th th becomes Th HTO.th th 5.6 0.056



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

Question number	Question	Answer	Marks	Related test
1	1 <sup>2</sup> =	1	1	Y5 Autumn Test 4
2	0.1 = 0.9	1	1	Y5 Summer Test 4
3	□ × 12 = 108	9	1	Y4 Autumn Test 3, Y4 Summer Test 2
4	900 × 🗌 = 90 000	100	1	Y5 Autumn Test 5, Y4 Autumn Test 3
5	144 = 2	12	1	Y5 Autumn Test 4
6	3408 ÷ 9 =	378 r6	1	Y5 Autumn Test 6
7	= 2176 × 6	13 056	1	Y5 Spring Test 3
8	$\frac{1}{6} + \frac{5}{12} = \square$	$\frac{7}{12}$ (or equiv)	1	Y5 Spring Test 6
9	$13 + 15 = \square \times 4$	7	1	Y6 Autumn Test 4
10	9.8165 × 100 =	981.65	1	Y6 Spring Test 3
11	$\frac{15}{10} + \frac{4}{5} =$	$2\frac{3}{10}$ (or equiv)	1	Y6 Autumn Test 2
12	$ = \frac{3}{8} \text{ of } 40 $	15	1	Y6 Autumn Test 3
13	$\frac{1}{5} \times \frac{1}{3} = \square$	$\frac{1}{15}$ (or equiv)	1	Y6 Spring Test 2
14	4 <sup>3</sup> =	64	1	Y5 Spring Test 1
15	139.652 ÷ 10 =	13.9652	1	Y6 Spring Test 3
16	9004 - 5119 =	3885	1	Y5 Autumn Test 3
17	8574 ÷ 6 =	1429	1	Y5 Spring Test 5
18	□ = 4 × (10 − 5)	20	1	Y6 Spring Test 1
19	$\frac{1}{6} \times \frac{1}{2} = \square$	$\frac{1}{12}$ (or equiv)	1	Y6 Spring Test 2
20	600 = 162	438	1	Y5 Autumn Test 3, Y3 Autumn Test 1
21	7458+29815+67=	37 340	1	Y5 Spring Test 4
22	35.92 - 6.741 =	29.179	1	Y6 Autumn Test 5
23	(30 – 19) × 8 =	88	1	Y6 Spring Test 1
24	4 × 🗌 = 7132	1783	1	Y5 Spring Test 5, Y4 Autumn Test 3
25		5056	1	Y5 Spring Test 3, Y4 Autumn Test 3
26	71.7 = 8.351	80.051	1	Y6 Autumn Test 5, Y3 Autumn Test 1
27	8531 ÷ 19 =	449	2*	Y6 Autumn Test 6
28	483 × 37 =	17 871	2*	Y6 Autumn Test 1
Total marks			30	

