Spring 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 remainders
- Formal written method for long multiplication and long division by a two-digit number
- Finding fractions of amounts
- Missing number calculations, including balanced calculations, with all four operations
- · Calculations with brackets

New: Multiplication of pairs of simple fractions

A teaching suggestion



Cut one circle into quarters and another into eighths. Display $\frac{1}{2} \times \frac{1}{4} =$





Explain that 'of' and '×' have the same meaning, so $\frac{1}{2} \times \frac{1}{4} = \frac{1}{2}$ of $\frac{1}{4}$.

Show the children that to find half of a quarter you need to cut the quarter in half. Compare this 'half of a quarter' with the eighths, and agree that they match. $\frac{1}{2}$ of $\frac{1}{4} = \frac{1}{8}$ and $\frac{1}{2} \times \frac{1}{4} = \frac{1}{8}$



Repeat with $\frac{1}{3} \times \frac{1}{2} =$ by cutting a half into three parts, which gives one sixth: $\frac{1}{3} \times \frac{1}{2} = \frac{1}{6}$.



Work through lots of examples with the children until they confidently multiply the digits, understanding why they do so. Allow them to work with a partner before trying the calculations independently.

This work can be extended to multiples of fractions (e.g. $\frac{1}{2} \times \frac{3}{4} =$).

Question number	Question	Answer	Marks	Related test
1	1 - 0.7 =	0.3	1	Y5 Summer Test 4
2	= 610 × 1000	610 000	1	Y5 Autumn Test 5
3	2 ³ =	8	1	Y5 Spring Test 1
4	4835 × 3 =	14 505	1	Y5 Spring Test 3
5	² = 9	3	1	Y5 Autumn Test 4
6	8391 ÷ 7 =	1198 r5	1	Y5 Autumn Test 6
7	9 ² =	81	1	Y5 Autumn Test 4
8	63.2 × 10 =	632	1	Y5 Spring Test 2
9	$\frac{3}{5} - \frac{1}{15} =$	$\frac{8}{15}$ (or equiv)	1	Y5 Spring Test 6
10	2 × 9 = + 10	8	1	Y6 Autumn Test 4
11	$\frac{14}{6} - \frac{1}{2} = \square$	$1\frac{5}{6}$ (or equiv)	1	Y6 Autumn Test 2
12	$\Box = \frac{1}{4} \times \frac{1}{2}$	$\frac{1}{8}$ (or equiv)	1	Y6 Spring Test 2
13	800 - 423 =	377	1	Y5 Autumn Test 3
14	$\frac{3}{4}$ of 120 =	90	1	Y6 Autumn Test 3
15	= 6.25 ÷ 100	0.0625	1	Y5 Spring Test 2
16	$\frac{1}{3} \times \frac{1}{4} = \square$	$\frac{1}{12}$ (or equiv)	1	Y6 Spring Test 2
17	5203 ÷ 9 =	578 r1	1	Y5 Spring Test 5
18	(20 – 4) ÷ 4 =	4	1	Y6 Spring Test 1
19	6007 = 2308	3699	1	Y5 Autumn Test 3, Y3 Autumn Test 1
20	$\frac{3}{5} \times \frac{1}{2} = \square$	$\frac{3}{10}$ (or equiv)	1	Y6 Spring Test 2
21	75 + _ = 5110	5035	1	Y5 Spring Test 4, Y3 Autumn Test 1
22	6 × (5 – 2) =	18	1	Y6 Spring Test 1
23	8105 = 🗌 × 5	1621	1	Y5 Spring Test 5, Y4 Autumn Test 3
24	5332 ÷ 🗌 = 4	1333	1	Y5 Spring Test 5, Y4 Autumn Test 3
25	752 945 - 86 582 =	666 363	1	Y5 Spring Test 4
26	9906 ÷ 26 =	381	2*	Y6 Autumn Test 6
27	26.8 + 8.68 + 14 =	49.48	1	Y6 Autumn Test 5
28	723 × 86 =	62 178	2*	Y6 Autumn Test 1
Total marks			30	

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