Autumn Test 3

25 minutes

Teacher guidance

Skills and knowledge needed for this test:

- Addition and subtraction of two numbers up to four digits
- Addition and subtraction of fractions with the same denominator
- Multiplication and division to 12 × 12 including derivatives of multiples of 100
- Multiplication of three numbers
- Multiplication by 0; multiplication and division by 1
- Formal written method for short multiplication (to HTO) and short division (to TO)
- Division of two-digit numbers by 10 or 100
- Missing number statements with all four operations

New: Understanding a formal written method for subtraction with zeros

A teaching suggestion

Step 1 This is an extension of the 'Pirate Game' (see Year 4 Spring Test 3). It helps to develop conceptual understanding of a formal written method for subtraction. Display the number 500 and explain that this is the treasure the children have. Select three children and give one five cards with '100' written on each.

Step 2 Select a child to be the pirate and underneath the 500 write '− 265'. Explain that this is what the pirate demands in payment.

Step 3 The pirate asks the 'ones' child for 5. They cannot pay so whisper to the 'tens child': 'Lend me some treasure'. The 'tens' child responds: 'I haven't got any!' and whispers to the 'hundreds' child: 'Lend me some treasure'. The 'hundreds' child responds: 'Alright, but I'm only giving you one!' and gives a hundred to the 'tens' child, who immediately swaps it for 10 tens. The 'tens' child then gives the 'ones' child a ten who swaps it for 10 ones.

Step 4 Alter the displayed sum to show that the 'hundreds' child is now holding 4 hundreds, the 'tens' child is holding 9 tens and the 'ones' child is holding 10 ones.

$$\begin{array}{r} {}^{4}\not{5}\,{}^{9}\not{0}\,{}^{10}0 \\ -\ 2\ 6\ 5 \\ \hline \end{array}$$

Step 5 The pirate now demands payment from each child in turn and is paid. The amount remaining is written on the answer line (235).

Step 6 Play the game with different subtractions. Allow the children to be dramatic!

Question number	Question	Answer	Marks	Related test
1	$6 \times 0 = \square$	0	1	Y4 Autumn Test 4
2	$8 \div 1 = \square$	8	1	Y4 Autumn Test 6
3	$70 = \square + 20$	50	1	Y3 Autumn Test 1, Y2 Autumn Test 4
4	$52 \times 1 = \square$	52	1	Y4 Autumn Test 6
5	$\square \div 10 = 4$	40	1	Y4 Autumn Test 3, Y2 Autumn Test 2
6	$39 \times 2 = \square$	78	1	Y4 Autumn Test 1
7	$72 \div 9 = \square$	8	1	Y4 Spring Test 2
8	$\square = \frac{11}{9} - \frac{2}{9}$	1 (or equiv)	1	Y4 Autumn Test 5, Y4 Summer Test 2
9	$11 \times 12 = \square$	132	1	Y4 Autumn Test 5, Y4 Summer Test 2
10	$90 \div 5 = \square$	18	1	Y4 Autumn Test 2
11	$\square + 37 = 62$	25	1	Y3 Autumn Test 1, Y3 Autumn Test 2
12	$327 \times 4 = \square$	1308	1	Y4 Summer Test 1
13	$5 \div 10 = \square$	0.5	1	Y5 Autumn Test 1
14	$7349 + 1775 = \square$	9124	1	Y4 Spring Test 1
15	$\square = 3500 \div 7$	500	1	Y4 Summer Test 5
16	$9425 - 2616 = \square$	6809	1	Y4 Spring Test 3
17	$28 \div 100 = \square$	0.28	1	Y5 Autumn Test 1
18	$7 \times 2 \times 6 = \square$	84	1	Y4 Summer Test 3
19	$604 - 279 = \square$	325	1	Y5 Autumn Test 3
20	$5 \times 23 \times 8 = \square$	920	1	Y4 Summer Test 3
21	$\frac{3}{8} + \frac{6}{8} = \square$	$1\frac{1}{8}$ (or equiv)	1	Y5 Autumn Test 2
22	$96 = \square \times 4$	24	1	Y4 Autumn Test 2, Y4 Autumn Test 3
23	$64 \div 10 = \square$	6.4	1	Y5 Autumn Test 1
24	$\square \div 6 = 25$	150	1	Y4 Autumn Test 1, Y4 Autumn Test 3
25	$5006 - 3247 = \square$	1759	1	Y5 Autumn Test 3
		Total marks	**25**	