



ANSWERS & MARK SCHEME

Year 6 Arithmetic Practice Paper 3

40 marks. Each row states what earns the mark for that question — where equivalents are acceptable (a fraction in another form, or the matching decimal) the notes say so. An answer written outside the box that is clearly the child's final answer still earns the mark.

Q	Answer	Marks	Notes
1	5,126	1	
2	3,917	1	
3	72	1	
4	8,823	1	
5	12	1	
6	5,700	1	
7	2,424	1	
8	$\frac{5}{9}$	1	
9	13.2	1	
10	2.33	1	
11	144	1	
12	7,640	1	
13	4,710	1	
14	113	1	
15	564	1	
16	58	1	
17	870	1	
18	$\frac{7}{8}$	1	Accept 0.875.



Q	Answer	Marks	Notes
19	40	1	
20	37,071	1	
21	50,656	2	2 marks for the correct answer; 1 mark for a correct formal method with one arithmetic error.
22	$\frac{5}{12}$	1	
23	1.66	1	
24	$\frac{3}{16}$	1	Accept 0.1875.
25	$4\frac{1}{2}$	1	Accept $\frac{9}{2}$ or 4.5.
26	54	2	2 marks for the correct answer; 1 mark for a correct formal method with one arithmetic error.
27	243	1	
28	159	1	
29	$\frac{1}{10}$	1	Accept 0.1.
30	28.44	1	
31	173,328	2	2 marks for the correct answer; 1 mark for a correct formal method with one arithmetic error.
32	$\frac{11}{24}$	1	
33	84	1	
34	6,090	1	
35	72	2	2 marks for the correct answer; 1 mark for a correct formal method with one arithmetic error.
36	$1\frac{7}{10}$	1	Accept $\frac{17}{10}$ or 1.7.



HOW TO WORK THEM OUT

8 $\frac{2}{9} + \frac{3}{9} = \frac{5}{9}$

Add the fractions on one bar

$\frac{2}{9}$ (coral) + $\frac{3}{9}$ (teal) = $\frac{5}{9}$



Answer: **5/9**

14 $\frac{1}{8}$ of 904 = 113

Fraction of an amount as a bar model

904 split into 8 equal parts
each part = $904 \div 8 = 113$



1 part shaded = 113

16 $168 - 22 \times 5 = 58$

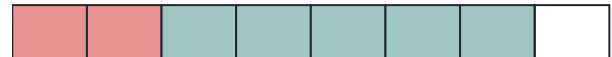
Order of operations

Brackets, then $\times$ and $\div$, then $+$ and $-$. Answer: **58**.

18 $\frac{1}{4} + \frac{5}{8} = \frac{7}{8}$

Add the fractions on one bar

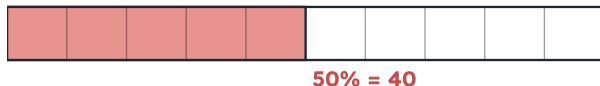
$\frac{1}{4} = \frac{2}{8}$ (coral) $\frac{5}{8} = \frac{5}{8}$ (teal) $\rightarrow \frac{7}{8}$ altogether



Answer: **7/8**



19 $50\% \text{ of } 80 = 40$

Percentages from 10% and 1% chunkswhole bar = 80, each section = $10\% = 8$ 

$5 \times 10\% = 5 \times 8 = 40$

21 $3,166 \times 16 = 50,656$

Long multiplication, shown as partial productsSplit 16 into $10 + 6$:

$3,166 \times 6 = 18,996$

$3,166 \times 10 = 31,660$

add them $= 50,656$

Award 1 of the 2 marks for a correct formal method with a single arithmetic slip.

26 $810 \div 15 = 54$

Long division, shown as chunks of the divisor

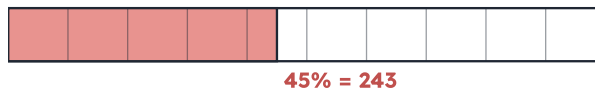
$15 \times 50 = 750$ leaves 60

$15 \times 4 = 60$ leaves 0

$50 + 4 = 54$

Award 1 of the 2 marks for a correct formal method with a single arithmetic slip.

27 $45\% \text{ of } 540 = 243$

Percentages from 10% and 1% chunkswhole bar = 540, each section = $10\% = 54$ 

$4 \times 10\% + 5 \times 1\% = 4 \times 54 + 5 \times 5.4 = 243$



28 $149 + (21 + 19) \div 4 = 159$

Order of operations

Brackets, then $\times$ and $\div$, then $+$ and $-$. Answer: **159**.

31 $3,768 \times 46 = 173,328$

Long multiplication, shown as partial products

Split 46 into $40 + 6$:

$$3,768 \times 6 = 22,608$$

$$3,768 \times 40 = 150,720$$

$$\text{add them} = \mathbf{173,328}$$

Award 1 of the 2 marks for a correct formal method with a single arithmetic slip.

33 $12\% \text{ of } 700 = 84$

Percentages from 10% and 1% chunks

whole bar = 700, each section = $10\% = 70$



$$\mathbf{12\% = 84}$$

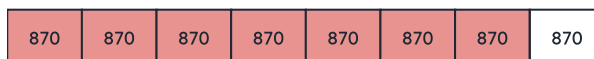
$$1 \times 10\% + 2 \times 1\% = 1 \times 70 + 2 \times 7 = \mathbf{84}$$

34 $\frac{7}{8} \text{ of } 6,960 = 6,090$

Fraction of an amount as a bar model

6,960 split into 8 equal parts

each part = $6,960 \div 8 = 870$



$$\mathbf{7 \text{ parts shaded} = 6,090}$$



35 $3,384 \div 47 = 72$

Long division, shown as chunks of the divisor

$$47 \times 70 = 3,290 \quad \text{leaves } 94$$

$$47 \times 2 = 94 \quad \text{leaves } 0$$

$$70 + 2 = 72$$

Award 1 of the 2 marks for a correct formal method with a single arithmetic slip.

36 $4 \frac{1}{5} - 2 \frac{1}{2} = 1 \frac{7}{10}$

Subtracting mixed numbers: improper fractions first

$$\begin{array}{rcl} 4 \frac{1}{5} & = & \frac{42}{10} \\ 2 \frac{1}{2} & = & \frac{25}{10} \end{array} \quad \text{common denominator 10}$$

$$\frac{42}{10} - \frac{25}{10} = \frac{17}{10} = 1 \frac{7}{10}$$