
2019 national curriculum tests

Key stage 2

Mathematics

Paper 1: arithmetic

1

6090

$= 6,000 + 90$

$$\begin{array}{r} 6000 \\ + \quad 90 \\ \hline 6090 \end{array}$$



1 mark

2

$$\boxed{8357} = 8,275 + 82$$

$$\begin{array}{r} 8275 \\ + \quad 82 \\ \hline 8357 \\ \hline \end{array}$$



1 mark

3

$$\underline{8}2\underline{6} = \underline{8}00 + \boxed{20} + \underline{6}$$

$$\begin{array}{r} 800 \\ 20 \\ 6 \\ \hline 826 \end{array}$$



1 mark

4

336

$+ 5 = 341$

$$\begin{array}{r} 3 \\ - 3 \\ \hline 3 \end{array}$$

Handwritten addition on a grid background showing the calculation of 336 + 5 = 341. The numbers 336 and the result 341 are written in blue. The number 5 is written in red. A red horizontal line is drawn under the 336. A red diagonal slash is drawn through the 4 in 341. A red minus sign is written to the left of the 3 in 341. Above the 3 in 341 is a blue 3, and above the 1 in 341 is a blue 1.



1 mark

5

$9 \times 41 =$

$$\begin{array}{r} 9 \times 40 = 360 \\ 9 \times 1 = 9 \end{array}$$

$$\begin{array}{r} 41 \\ \times 9 \\ \hline 369 \end{array}$$

369



1 mark

6

$5.87 + 3.123 =$

$$\begin{array}{r} 5.870 \\ + 3.123 \\ \hline 8.993 \end{array}$$

8.993



1 mark

7

$180 \div 3 =$

$180 \div 3$

$$\begin{array}{r} 060 \\ 3 \overline{)180} \end{array}$$

$$\begin{array}{l} 18 \div 3 = 6 \\ 180 \div 3 = 60 \end{array}$$

60



1 mark

8

$120 \div 12 =$

120

$12 \times 10 = 120$

$$\begin{array}{r} 010 \\ 12 \overline{) 120} \end{array}$$

10



1 mark

9

$$213 \times \underline{\underline{0}} =$$

213



1 mark

10

$91 \div 7 =$

7
14
21

$$\begin{array}{r} 13 \\ 7 \overline{)91} \end{array}$$

13



1 mark

11

$$\boxed{22} = 87 - 65$$

$$\begin{array}{r} 87 \\ - 65 \\ \hline 22 \end{array}$$



1 mark

12

$$602 - \boxed{8} = 594$$

$$\begin{array}{r} 5 \cancel{6} \overset{9}{\cancel{0}} \overset{1}{\cancel{2}} \\ - 594 \\ \hline 008 \end{array}$$

$$602 \xrightarrow{-2} 600 \xrightarrow{-6} 594 = -8$$



1 mark

13

$1,210 \div 11 =$

$1210 \div 11 = 110$
 $121 \div 11 = 11$

$11 \times 11 = 121$

$$\begin{array}{r} 0110 \\ 11 \overline{) 1210} \\ \underline{11} \\ 10 \\ \underline{11} \\ 10 \\ \underline{11} \\ 0 \end{array}$$

110



1 mark

14

$25.34 \times 10 =$

2534

253.4



1 mark

15

$$60 \div \underline{(30 - 24)} =$$

$$30 - 24 = 6$$

$$60 \div 6 = 10$$

10



1 mark

16

$$3^3 = 3 \times 3 \times 3$$

$$3 \times 3 = 9$$

$$9 \times 3 =$$

27



1 mark

17

$$101 \times 1,000 =$$

101000.

left 3 places

101,000



1 mark

18

20% of 3,000 =

$$\div 10 \begin{cases} 100\% = 3000 \\ 10\% = 300 \end{cases}$$

$$\times 2 \begin{cases} 10\% = 300 \\ 20\% = 600 \end{cases}$$

600



1 mark

19

$7 - 2.25 =$

$$\begin{array}{r} 6 \\ \cancel{7} . \cancel{0} \cancel{0} \\ - 2 . 25 \\ \hline 4 . 75 \end{array}$$

$7 - 2 = 5$

$5 - 0.25$

4.75



1 mark

20

$$0.9 \div \underline{100} =$$

0.009

Right
2 places

0.009



1 mark

21

$9 - 1.9 =$

$$\begin{array}{r} 8 \\ - 1.9 \\ \hline 7.1 \end{array}$$

$9 - 1 = 8$

$8 - 0.9$

7.1



1 mark

22

$$1\frac{3}{7} - \frac{4}{7} =$$

Handwritten work on a grid background:

$1\frac{3}{7} - \frac{4}{7}$

The number 1 is circled in red, with a line pointing to a red circle containing $\frac{7}{7}$ and $\frac{3}{7}$.

$\frac{7}{7} \frac{3}{7} - \frac{4}{7}$

$\frac{10}{7} - \frac{4}{7}$

The final answer $\frac{6}{7}$ is written in red inside a blue rectangular box.



1 mark

23

$$\begin{array}{r} 836 \\ \times 27 \\ \hline \end{array}$$

$$\begin{array}{r} 836 \\ \times 27 \\ \hline 5852 \quad 42 \\ 16720 \quad 1 \\ \hline 22572 \\ \hline 11 \end{array}$$

Show
your
method

22572



2 marks

24

$$\frac{1}{5} + \frac{3}{4} =$$

$$\begin{array}{r} 5 \ 4 \\ 10 \ 8 \\ 15 \ 12 \\ 20 \ 16 \\ 20 \end{array}$$

$$\begin{array}{r} \overset{\times 4}{\cancel{1}} / \overset{\times 4}{\cancel{5}} + \overset{\times 5}{\cancel{3}} / \overset{\times 5}{\cancel{4}} \\ \hline 4 / 20 + 15 / 20 \end{array}$$

$$\boxed{\frac{19}{20}}$$



1 mark

25

$$\begin{array}{r|l} 024 & \\ 37 & 88 \text{ } 48 \end{array}$$

Show
your
method

$$\begin{array}{r} 111 \\ + 37 \\ \hline 148 \end{array}$$

④

$$74 \begin{array}{r} \overline{14} \rightarrow \\ 88 \end{array}$$

① $\begin{array}{r} 37 \\ 37 \\ \hline \end{array}$
② $\begin{array}{r} 74 \\ 37 \\ \hline \end{array}$ ✓
③ $\begin{array}{r} 111 \\ \hline \end{array}$

24



2 marks

26

$$1\frac{1}{5} + 2\frac{1}{10} =$$

$$\frac{1}{5} + \frac{1}{10}$$

$$\frac{2}{10} + \frac{1}{10} = \underline{\underline{\frac{3}{10}}}$$

$$3\frac{3}{10}$$



1 mark

27

35% of 320 =

$$100\% = 320$$

$$10\% = 32$$

x3 4

$$\textcircled{10\%} = 32$$

$$30\% = 96$$

$$5\% = 16$$

$$\begin{array}{r} 96 \\ + 16 \\ \hline \end{array}$$

112



1 mark

28

$$\frac{8}{9} - \frac{1}{4} =$$

$$\begin{array}{r} \frac{8}{9} \times 4 \\ - \frac{1}{4} \times 9 \\ \hline \frac{32}{36} - \frac{9}{36} \\ \hline \end{array}$$

$$\frac{23}{36}$$



1 mark



29

51% of 900 =

$$100\% = 900$$

$$10\% = 90$$

$$1\% = 9$$

$$\div 2 \left\{ \begin{array}{l} 100\% = 900 \\ 50\% = 450 \end{array} \right.$$

459



1 mark

30

$$\begin{array}{r} 3468 \\ \times 62 \\ \hline 6936 11 \\ 208080 442 \\ \hline 215016 \\ \hline 111 \end{array}$$

Show
your
method

215,016



2 marks

31

$$\frac{2}{3} \div \frac{3}{1} =$$

$$\frac{2}{3} \times \frac{1}{3} = \frac{2}{9}$$

$$\frac{2}{3} \div 3$$

$$\frac{4}{6} \div 3$$

$$\frac{6}{9} \div 3 = \frac{2}{9}$$

$$\frac{2}{9}$$



1 mark

32

$$2\frac{1}{2} - \frac{3}{4} =$$

$$\frac{3}{4} \Rightarrow \left(\frac{1}{2} + \frac{1}{4}\right)$$

$$2\frac{2}{4} - \frac{3}{4}$$

$$2 = \frac{8}{4}$$

$$\frac{10}{4} - \frac{3}{4} = \frac{7}{4}$$

$$\frac{7}{4} \text{ or } 1\frac{3}{4}$$



1 mark

33

36% of 450 =

$$\begin{array}{r} 135. \\ 22.5 \\ 4.5 \\ \hline 162.0 \\ \hline 11 \end{array}$$

$5\% = 22.5$
 $10\% = 45$
 $1\% = 4.5$
 $30\% = 135$

$\times 3$ (applied to 10%, 1%, and 30%)

162



1 mark

34

$$1\frac{3}{4} \times 10 =$$

$$1 = \frac{4}{4}$$

$$\frac{7}{4} \times \frac{10}{1}$$

$$\frac{70}{4}$$

$$\frac{70}{4} = 17.5$$

$$1.75 \times 10$$

$$= 17.5$$

$$\frac{70}{4} \checkmark 17.5$$



1 mark

35

$$\frac{5}{6} \times 540 =$$

$\frac{5}{6}$ of 540

$$6 \overline{) 540} \begin{array}{r} 090 \\ \hline \end{array}$$

$$\begin{array}{r} 90 \\ \times 5 \\ \hline 450 \end{array}$$

450



1 mark

36

83 \rightarrow 581 83 \rightarrow 805
83 | ~~805~~ 1

Show your method

$$\begin{array}{r} 791 \\ \cancel{805} \\ - 747 \\ \hline 58 \end{array}$$

$$\begin{array}{l} 80 \times 7 = 560 \\ 3 \times 7 = 21 \\ \hline 581 \end{array}$$

$$\begin{array}{r} 83 \\ 166 \\ \cancel{830} \\ 83 \times 9 = 83 \\ \hline 747 \end{array}$$

7



2 marks