

2017 national curriculum tests

Key stage 2

Mathematics

Paper 1: arithmetic

First name						
Middle name						
Last name						
Date of birth	Day		Month		Year	
School name						
DfE number						

Completed paper. Mark the answers and explain what errors have been made.



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Instructions

You **must not** use a calculator to answer any questions in this test.

Questions and answers

You have **30 minutes** to complete this test.

Work as quickly and as carefully as you can.

Put your answer in the box for each question.

All answers should be given as a single value.

For questions expressed as common fractions or mixed numbers, you should give your answers as common fractions or mixed numbers.

If you cannot do a question, **go on to the next one**.

You can come back to it later, if you have time.

If you finish before the end, **go back and check your work**.

Marks

The number under each box at the side of the page tells you the maximum number of marks for each question.

In this test, long division and long multiplication questions are worth **TWO marks each**. You will be awarded **TWO** marks for a correct answer.

You may get **ONE** mark for showing a formal method.

All other questions are worth **ONE mark each**.



1

$40 + 1,000 =$

	4	0		
+	1	0	0	0
<hr/>				
	5	0	0	0

5000

1 mark

2

$707 + 1,818 =$

		7	0	7
+	1	8	1	8
<hr/>				
	2	5	1	5

2515

1 mark

3

$\frac{4}{6} + \frac{3}{6} =$

4	+	3	=	7
6	+	6	=	12

 $\frac{7}{12}$

1 mark



4

$505 \div 1 =$

504

1 mark

5

$345 - 60 =$

$$\begin{array}{r} 345 \\ - 60 \\ \hline 385 \end{array}$$

385

1 mark

6

$2.7 + 3.014 =$

$$\begin{array}{r} 2.7 \\ + 3.014 \\ \hline 5.714 \end{array}$$

5.714

1 mark



F 0 0 0 6 0 A 0 5 2 0

7

$3900 = 4,500 + 600$

3	9	0	0
-	6	0	0
<hr/>			
3	9	0	0

1 mark

8

$8 \times 33 =$

	3	3	
x		8	
<hr/>			
2	4	2	4

2424

1 mark

9

$72 \div 9 =$

	0	8
9		72

8

1 mark



10

$167 \times 4 =$

$$\begin{array}{r} 167 \\ \times 4 \\ \hline 672 \\ \underline{23} \end{array}$$

$$\begin{array}{l} 4 \times 7 = 32 \\ 4 \times 6 = 24 \\ 4 \times 1 = 4 \end{array}$$

672

1 mark

11

$4,912 - 824 =$

$$\begin{array}{r} 4912 \\ + 824 \\ \hline 5736 \\ \underline{1} \end{array}$$

5736

1 mark

12

$\frac{62}{100} - \frac{38}{100} =$

$$\begin{array}{r} \cancel{5} \cancel{0} 62 \\ - 38 \\ \hline 24 \end{array}$$

24

1 mark



13

$$959 - 100 = 1,059$$

	9	5	9
-	1	0	0
	9	5	9

1 mark

14

$$50 + (36 \div 6) =$$

$$50 + 36 = 86$$

$$6 \overline{) 36} \begin{array}{l} 14 \text{ r } 2 \end{array}$$

$$14 \text{ r } 2$$

1 mark

15

$$\frac{4}{6} \times \frac{3}{5} =$$

$$\frac{4}{6} \times \frac{3}{5} = \frac{12}{30} = \frac{1}{5}$$

$$\frac{1}{5}$$

1 mark



16

$30 \times 40 =$

$3 \times 4 = 12 \Rightarrow 30 \times 40 = 120$

120



1 mark

17

$581 \div 7 =$

$$\begin{array}{r} 082 \text{ r } 7 \\ 7 \overline{) 581} \end{array}$$

82 r 7



1 mark

18

$0.04 \div 10 =$

0.4



1 mark



F 0 0 0 6 0 A 0 9 2 0

19

$$2,345 \times 1,000 =$$

234500

1 mark

20

$$\begin{array}{r} 042 \text{ r } 11 \\ 17 \overline{) 774} \end{array}$$

$$\begin{array}{r} 17 \\ 33 \\ 50 \\ 67 \\ 84 \end{array}$$

Show your method

42 r 11

2 marks



23

$$\frac{3}{4} - \frac{3}{8} =$$

$$\frac{0}{4}$$

1 mark

24

$$\begin{array}{r} 418 \\ \times 46 \\ \hline \end{array}$$

$$\begin{array}{r} 18508 \\ 1672 \\ \hline \end{array}$$

$$\begin{array}{r} 2508 \\ 16720 \\ \hline 18228 \end{array}$$

Show
your
method

18228

2 marks



25

$$37.8 - 14.671 =$$

$$\begin{array}{r} 37.800 \\ - 14.671 \\ \hline 23.139 \end{array}$$

23.139

1 mark

26

$$\frac{1}{4} + \frac{1}{5} + \frac{1}{10} =$$

$$\frac{3}{19}$$

1 mark

27

$$\frac{4}{5} \div 4 =$$

Keep
Flip
Change

$$\frac{4}{5} \div \frac{4}{1} \Rightarrow \frac{4}{5} \times \frac{1}{4} = \frac{16}{5}$$

$$\frac{16}{5}$$

1 mark



F 0 0 0 6 0 A 0 1 3 2 0

28

$$\frac{5}{8} \div 2 =$$

$$\frac{5}{4}$$



1 mark

29

$$45\% \text{ of } 460 =$$

$$\begin{aligned} 100\% &= 460 \\ 50\% &= 230 \\ 10\% &= 46 \\ 1\% &= 4.6 \end{aligned}$$

$$\begin{array}{r} 230.0 \\ - 20.3 \\ \hline 209.7 \end{array}$$

$$\begin{aligned} 5 \times 4.6 &= 20.3 \\ \Rightarrow 5\% &= 20.3 \end{aligned}$$

$$209.7$$



1 mark

30

$$2\frac{1}{3} + \frac{5}{6} =$$

$$\frac{1}{3} = \frac{2}{6} \quad \frac{2}{6} + \frac{5}{6} = \frac{7}{6}$$

$$2\frac{7}{6}$$



1 mark



31

7% of 500 =

$$100\% = 500$$

$$10\% = 50$$

$$1\% = 5$$

$$5 + 5 + 5 + 5 + 5 + 5 = 30$$

30



1 mark

32

$$\frac{2}{6} - \frac{1}{8} =$$

$$\begin{array}{l} \frac{2}{6} \\ \downarrow \times 4 \\ 8 \\ \downarrow \times 3 \\ 24 \end{array} \quad \begin{array}{l} \frac{1}{8} \\ \downarrow \times 3 \\ 3 \\ \downarrow \times 8 \\ 24 \end{array}$$

$$\frac{5}{24} = \frac{1}{5}$$



1 mark



33

$0.9 \times 200 =$

$9 \times 200 = 180$

18



1 mark

34

$15\% \times 1,000 =$

15×1000

15 000



1 mark



35

$$1\frac{1}{2} \times 57 =$$

$$\begin{array}{r} 1 \times 57 = 57 \\ \frac{1}{2} \times 57 = \frac{57}{2} \\ \hline \end{array}$$

$$57\frac{57}{2}$$



1 mark

36

$$\begin{array}{r} 59 \overline{) 2242} \\ \underline{17} \\ 0472 \\ \underline{47} \\ 000 \end{array}$$

$$\begin{array}{r} 59 \\ \rightarrow 118 \\ \underline{177} \\ 236 \\ \underline{295} \\ 354 \\ \underline{413} \\ \rightarrow 472 \end{array}$$

Show your method

$$37$$



2 marks



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Standards
& Testing
Agency

2017 key stage 2 mathematics

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