

2018 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						



[BLANK PAGE]

Please do not write on this page.



1

$39 + 673 =$

$$\begin{array}{r} 673 \\ + 39 \\ \hline 712 \end{array}$$

712

1 mark

2

$\frac{9}{11} - \frac{4}{11} =$

$$\frac{9}{11} - \frac{4}{11} = \frac{5}{11}$$

 $\frac{5}{11}$

1 mark

3

$2 \times 45 =$

$$\begin{array}{r} 45 \\ \times 2 \\ \hline 90 \end{array}$$

90

1 mark



4

$$838 \div 1 =$$

$$\begin{array}{r} 838 \\ 1 \overline{)838} \end{array}$$

Any number divided by 1 remains the same.

838

1 mark

5

$$99 \div 11 =$$

$$\begin{array}{r} 9 \\ 11 \overline{)99} \end{array}$$

9

1 mark

6

$$5 \times 4 \times 10 =$$

$$5 \times 4 = 20$$

$$20 \times 10 = 200$$

200

1 mark



600060A0520

7

$$7,064 - 502 =$$

$$\begin{array}{r} 6 \\ 7064 \\ - 502 \\ \hline 6562 \end{array}$$

6562

1 mark

8

$$6^2 + 10 =$$

$$6^2 = 6 \times 6 = 36$$

$$36 + 10 = 46$$

46

1 mark

9

$$56.38 + 24.7 =$$

$$\begin{array}{r} 56.38 \\ + 24.70 \\ \hline 81.08 \end{array}$$

81.08

1 mark



10

$$\boxed{308} - 10 = 298$$

$$\begin{array}{r} 298 \\ + 10 \\ \hline 308 \\ \hline 1 \end{array}$$

1 mark

11

$$270 \div 3 =$$

$$\begin{array}{r} 090 \\ 3 \overline{) 270} \end{array}$$

$$\boxed{90}$$

1 mark

12

$$5,400 \div 9 =$$

$$\begin{array}{r} 0600 \\ 9 \overline{) 5400} \end{array}$$

$$\boxed{600}$$

1 mark



13

$60 \div 15 =$

$$\begin{array}{r} 4 \\ 15 \overline{)60} \end{array}$$

$$\begin{array}{r} 15_1 \\ 30_2 \\ 45_3 \\ 60_4 \end{array}$$

4

1 mark

14

$4921 = 5,776 - 855$

$$\begin{array}{r} 4 \\ 5 \overline{)5776} \\ - \quad 855 \\ \hline 4921 \end{array}$$

1 mark

15

$3,050,020 = 3,000,000 + 50,000 + 20$

$$\begin{array}{r} 3,000,000 \\ 50,000 \\ 20 \end{array}$$

1 mark



16

$10 - 5.4 =$

$$\begin{array}{r} 10.0 \\ - 5.4 \\ \hline 4.6 \end{array}$$

4.6

1 mark

17

$\frac{5}{7} + \frac{3}{21} =$

$$\frac{5^{\cancel{3}}}{7^{\cancel{3}} + \frac{3}{21}}$$

$$\rightarrow \frac{15}{21} + \frac{3}{21} = \frac{18}{21} = \frac{6}{7}$$

Find a common denominator eg 21

 $\frac{6}{7}$

1 mark

18

$0.1 \div 100 =$

$$\begin{array}{r} 0.1 \\ \xrightarrow{\text{move 2 places right}} \\ 0.001 \end{array}$$

When dividing by 100
move each digit
2 places to the right

0.001

1 mark



G 0 0 0 6 0 A 0 9 2 0

19

$\frac{3}{4}$ of 1,000 =

$$\begin{array}{r} 0250 \\ 4 \overline{) 1000} \\ \underline{400} \\ 600 \\ \underline{600} \\ 0000 \end{array}$$

$$\begin{array}{r} 250 \\ \times 3 \\ \hline 750 \end{array}$$

750

1 mark

20

$$\begin{array}{r} 785 \\ \times 23 \\ \hline \end{array}$$

Show your method

$$\begin{array}{r} 2355 \\ 15700 \\ \hline 18055 \end{array}$$

18055

2 marks



21

20% of 1,200 =

$$10\% \text{ of } 1200 = 120$$

$$20\% = 2 \times 120 = 240$$

240

1 mark

22

$$\begin{array}{r} 43\overline{)645} \\ \underline{-43} \\ 215 \\ \underline{-215} \\ 0 \end{array}$$

$$\begin{array}{r} 43. \\ \underline{86} \\ 129 \\ \underline{172} \\ 215 \end{array}$$

Show your method

15

2 marks



G 0 0 0 6 0 A 0 1 1 2 0

23

$$0.5 \times 28 =$$

$$0.5 = \frac{1}{2}$$

$$\frac{1}{2} \times 28 = 14$$

14



1 mark

24

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

$$\frac{1 \times 5}{2 \times 5} + \frac{1 \times 2}{5 \times 2}$$

Find a common denominator e.g. 10

$$\frac{5}{10} + \frac{2}{10} = \frac{7}{10}$$

$$\frac{7}{10}$$


1 mark

25

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

$$1\frac{3}{4} + \frac{3}{4} = 1\frac{6}{4} = 2\frac{2}{4} = 2\frac{1}{2}$$

$$2\frac{1}{2}$$


1 mark



26

$6 - 5.738 =$

	5	9	9															
	6	.	0	0	0													
-	5	.	7	3	8													
	<u>0</u>	.	<u>2</u>	<u>6</u>	<u>2</u>													

0.262



1 mark

27

$3.9 \times 30 =$

$3.9 \times 10 = 39$

	3	9																
x		3																
	<u>1</u>	<u>1</u>	<u>7</u>															
			2															

117



1 mark



28

$$1\frac{1}{15} - \frac{2}{5} =$$

$$1\frac{1}{15} - \frac{2 \times 3}{5 \times 3}$$

$$1\frac{1}{15} - \frac{6}{15} \rightarrow \frac{16}{15} - \frac{6}{15} = \frac{10}{15} = \frac{2}{3}$$

Convert to an improper fraction

Find a common denominator eg 15

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

1 mark

29

$$\begin{array}{r} 5413 \\ \times \quad 86 \\ \hline \end{array}$$

$$\begin{array}{r} 32478 \\ + 433040 \\ \hline 465518 \end{array}$$

Remember to use a place value header.

Show your method

$$465518$$

2 marks



30

$$99\% \text{ of } 200 =$$

$$99\% \text{ of } 100 = 99$$

$$\begin{array}{r} 99 \\ \times 2 \\ \hline 198 \end{array}$$

198

1 mark

31

$$\frac{1}{4} \div 2 =$$

$$\begin{array}{l} \frac{1}{4} \div 2 \\ \rightarrow \frac{1}{4} \times \frac{1}{2} = \frac{1}{8} \end{array}$$

 $\frac{1}{8}$

1 mark

32

$$9^2 - 36 \div 9 =$$

$$9^2 = 9 \times 9 = 81$$

$$36 \div 9 = 4$$

$$81 - 4 = 77$$

BODMAS

↑

Remember to use the order of operations.

77

1 mark



33

$1\frac{1}{2} \times 40 =$

$1 \times 40 = 40$

$\frac{1}{2} \times 40 = 20$

$1\frac{1}{2} \times 40 = 60$

60

1 mark

34

$28\% \text{ of } 650 =$

$10\% \text{ of } 650 = 65$

$1\% \text{ of } 650 = 6.5$

65

$$\begin{array}{r} \times 2 \\ \hline 130 \end{array}$$

6.5

$$\begin{array}{r} \times 8 \\ \hline 52.0 \\ \hline 4 \end{array}$$

130

+ 52

182

182

1 mark



35

$$4\frac{2}{3} - 1\frac{6}{7} =$$

Find a common denominator
eg. 21

$$4\frac{2}{3} - 1\frac{6}{7}$$

$$\rightarrow 4\frac{14}{21} - 1\frac{18}{21} \Rightarrow \frac{98}{21} - \frac{39}{21} = \frac{59}{21}$$

$$\frac{59}{21} \text{ or } 2\frac{17}{21}$$

1 mark

36

$$\begin{array}{r} 91 \\ 97 \overline{) 8827} \\ \underline{- 873} \\ 0097 \\ \underline{- 97} \\ 0 \end{array}$$

$$\begin{array}{r} 97 \\ 194 \\ 291 \\ 388 \\ 485 \\ 582 \\ 679 \\ 776 \\ 873 \\ 970 \end{array}$$

Show
your
method

91

2 marks


[END OF TEST]

Please do not write on this page.



[BLANK PAGE]

Please do not write on this page.





Standards
& Testing
Agency

2018 key stage 2 mathematics

Paper 1: arithmetic

Print version product code: STA/18/7973/p ISBN: 978-1-78644-626-8

Electronic PDF version product code: STA/18/7973/e ISBN: 978-1-78644-646-6

For more copies

Additional printed copies of this booklet are not available. It can be downloaded from www.gov.uk/government/publications.

© Crown copyright 2018

Re-use of Crown copyright in test materials

Subject to the exceptions listed below, the test materials on this website are Crown copyright and you may re-use them (not including logos) free of charge in any format or medium in accordance with the terms of the Open Government Licence v3.0 which can be found on the National Archives website and accessed via the following link: www.nationalarchives.gov.uk/doc/open-government-licence. When you use this information under the Open Government Licence v3.0, you should include the following attribution: 'Contains material developed by the Standards and Testing Agency for 2018 national curriculum assessments and licensed under Open Government Licence v3.0' and where possible provide a link to the licence.

OGL

Exceptions – third-party copyright content in test materials

You must obtain permission from the relevant copyright owners, as listed in the '2018 key stage 2 tests copyright report', for re-use of any third-party copyright content which we have identified in the test materials, as listed below. Alternatively, you should remove the unlicensed third-party copyright content and/or replace it with appropriately licensed material.

Third-party content

These materials contain no third-party copyright content.

If you have any queries regarding these test materials, contact the national curriculum assessments helpline on 0300 303 3013 or email assessments@education.gov.uk.

