

Spring 1. Week 2.

Friday: Mrs Brown's Group.

Date: Week 2

Title: Arithmetic



Title	Ingredients
Roman Numerals Arithmetic Paper 2018	<ul style="list-style-type: none">- Add after main symbol- Subtract before the main digit- Show your working out!

Key words/terminology:

We do...



Title:

Method

Complete these before you write the date or title:

1). $4 - 11 =$

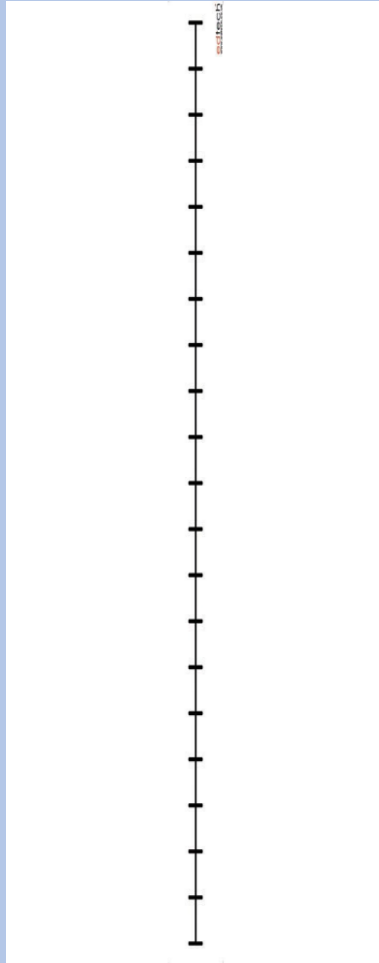
$6 - 9 =$

$5 - 12 =$

$1 - 7 =$

$8 - 13 =$

$3 - 9 =$



2).

Translate these Roman numerals. Don't forget to show your working out!

① MD _____

④ CXVI _____

② MCD _____

⑤ DCLX _____

③ XXXIV _____

⑥ CXIII _____

Times tables



Title:

Method

Complete your Arithmetic test! You have 30 minutes!



If you finish, write down the time so you can challenge yourself to finish faster next week :)

Also, if you finish check your answers!

30 minutes

2018 Maths Paper 1:

Make sure you show any working out.

Read the question carefully.

Check timings.

**Go back and check every question is
answered, if you have time.**

Check any questions you were unsure of.

1

$39 + 673 =$

1 mark

2

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

1 mark

3

$2 \times 45 =$

1 mark

4

$838 \div 1 =$

1 mark

5

$99 \div 11 =$

1 mark

6

$5 \times 4 \times 10 =$

1 mark

7

$7,064 - 502 =$

1 mark

10

$\boxed{} - 10 = 298$

1 mark

8

$6^2 + 10 =$

1 mark

11

$270 \div 3 =$

1 mark

9

$56.38 + 24.7 =$

1 mark

12

$5,400 \div 9 =$

1 mark

13

$60 \div 15 =$

1 mark

16

$10 - 5.4 =$

1 mark

14

$\boxed{} = 5,776 - 855$

1 mark

17

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

1 mark

15

$3,050,020 = 3,000,000 + \boxed{} + 20$

1 mark

18

$0.1 \div 100 =$

1 mark

19

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

1 mark

21

$$20\% \text{ of } 1,200 =$$

1 mark

20

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

Show
your
method

2 marks

22

$$43 \overline{) 645}$$

Show
your
method

2 marks

23

$0.5 \times 28 =$

1 mark

24

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

1 mark

25

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

1 mark

26

$6 - 5.738 =$

1 mark

27

$3.9 \times 30 =$

1 mark

28

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

1 mark

29

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

Show
your
method

2 marks

30

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

1 mark

31

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

1 mark

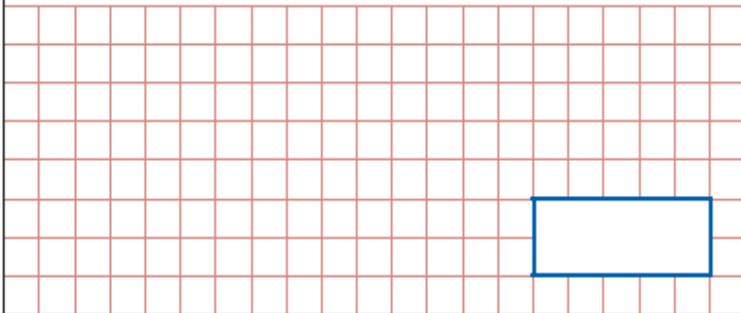
32

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

1 mark

33

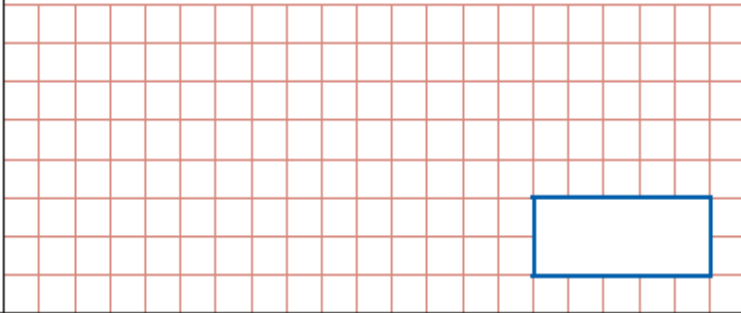
$1\frac{1}{2} \times 40 =$



1 mark

34

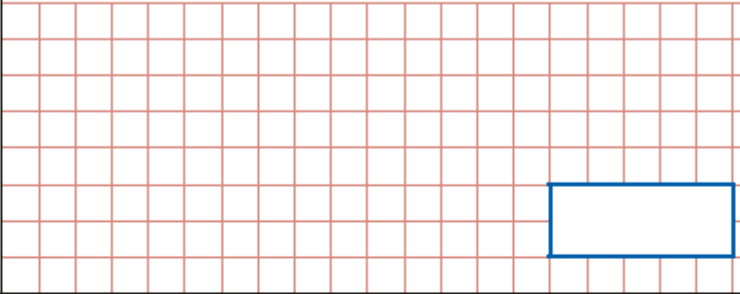
$28\% \text{ of } 650 =$



1 mark

35

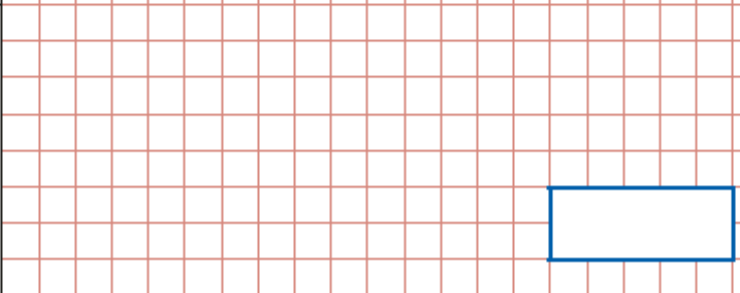
$4\frac{2}{3} - 1\frac{6}{7} =$



1 mark

36

978827

Show
your
method

2 marks

Answers:

Qu.	Requirement	Mark	Additional guidance
1	712	1m	
2	$\frac{5}{11}$	1m	Accept equivalent fractions or an exact decimal equivalent, e.g. $0.\overline{45}$ (accept any unambiguous indication of the recurring digits). Do not accept rounded or truncated decimals.
3	90	1m	
4	838	1m	
5	9	1m	
6	200	1m	
7	6,562	1m	
8	46	1m	
9	81.08	1m	
10	308	1m	
11	90	1m	
12	600	1m	
13	4	1m	
14	4,921	1m	
15	50,000	1m	
16	4.6	1m	
17	$\frac{6}{7}$	1m	Accept equivalent fractions or an exact decimal equivalent, e.g. $0.\overline{857142}$ (accept any unambiguous indication of the recurring digits). Do not accept rounded or truncated decimals.
18	0.001	1m	Accept equivalent fractions, e.g. $\frac{1}{1000}$

Answers:

19	750	1m	
20	<p>Award TWO marks for the correct answer of 18,055</p> <p>If the answer is incorrect, award ONE mark for a formal method of long multiplication with no more than ONE arithmetic error, e.g.</p> <ul style="list-style-type: none"> • $\begin{array}{r} 785 \\ \times 23 \\ \hline 2355 \\ 15700 \\ \hline 18155 \text{ (error)} \end{array}$ OR • $\begin{array}{r} 785 \\ \times 23 \\ \hline 2345 \text{ (error)} \\ 15700 \\ \hline 18045 \end{array}$ 	Up to 2m	<p>Working must be carried through to reach a final answer for the award of ONE mark.</p> <p>Do not award any marks if the error is in the place value, e.g. the omission of the zero when multiplying by tens:</p> $\begin{array}{r} 785 \\ \times 23 \\ \hline 2355 \\ 1570 \text{ (place value error)} \\ \hline 3925 \end{array}$
21	240	1m	Do not accept 240%

Answers:

22	<p>Award TWO marks for the correct answer of 15</p> <p>If the answer is incorrect, award ONE mark for a formal method of division with no more than ONE arithmetic error, i.e.</p> <ul style="list-style-type: none"> long division algorithm, e.g. $\begin{array}{r} 14 \text{ (error)} \\ 43 \overline{) 645} \\ \underline{- 430} \\ 215 \\ \underline{- 215} \\ 0 \end{array}$ <p>OR</p> $\begin{array}{r} 15 \text{ r}28 \\ 43 \overline{) 645} \\ \underline{- 430} \quad 10 \times 43 \\ 215 \\ \underline{- 129} \quad 3 \times 43 \\ 114 \text{ (error)} \\ \underline{- 86} \quad 2 \times 43 \\ 28 \end{array}$ <ul style="list-style-type: none"> short division algorithm, e.g. $\begin{array}{r} 1 \ 5 \text{ r}3 \text{ (error)} \\ 43 \overline{) 64215} \end{array}$	Up to 2m	<p>Working must be carried through to reach a final answer for the award of ONE mark.</p> <p>Short division methods must be supported by evidence of appropriate carrying figures to indicate the use of a division algorithm, and be a complete method. The carrying figure must be less than the divisor.</p>
23	14	1m	
24	$\frac{7}{10}$	1m	Accept equivalent fractions or the exact decimal equivalent, e.g. 0.7
25	$2\frac{1}{2}$	1m	Accept equivalent mixed numbers, fractions or the exact decimal equivalent, e.g. 2.5
26	0.262	1m	
27	117	1m	

Answers:

28	$\frac{2}{3}$	1m	Accept equivalent fractions or an exact decimal equivalent, e.g. $0.\overline{6}$ (accept any unambiguous indication of the recurring digits). Do not accept rounded or truncated decimals.
29	<p>Award TWO marks for the correct answer of 465,518</p> <p>If the answer is incorrect, award ONE mark for the formal method of long multiplication with no more than ONE arithmetic error, e.g.</p> <ul style="list-style-type: none"> $\begin{array}{r} 5413 \\ \times \quad 86 \\ \hline 32478 \\ 433040 \\ \hline 465438 \text{ (error)} \end{array}$ <p>OR</p> <ul style="list-style-type: none"> $\begin{array}{r} 5413 \\ \times \quad 86 \\ \hline 32478 \\ 423040 \text{ (error)} \\ \hline 455518 \end{array}$ 	Up to 2m	<p>Working must be carried through to reach a final answer for the award of ONE mark.</p> <p>Do not award any marks if the error is in the place value, e.g. the omission of the zero when multiplying by tens:</p> <ul style="list-style-type: none"> $\begin{array}{r} 5413 \\ \times \quad 86 \\ \hline 32478 \\ 43304 \text{ (place value error)} \\ \hline 75782 \end{array}$
30	198	1m	Do not accept 198%
31	$\frac{1}{8}$	1m	Accept equivalent fractions or an exact decimal equivalent, e.g. 0.125
32	77	1m	
33	60	1m	Do not accept unsimplified equivalent fractions unless accompanied by 60 or $\frac{60}{1}$
34	182	1m	Do not accept 182%
35	$2\frac{17}{21}$ OR $\frac{59}{21}$	1m	<p>Accept equivalent mixed numbers, fractions or the exact decimal equivalent, e.g. $2.\overline{809523}$ (accept any unambiguous indication of the recurring digits).</p> <p>Do not accept rounded or truncated decimals.</p>

Answers:

36

Award **TWO** marks for the correct answer of 91

If the answer is incorrect, award **ONE** mark for the formal methods of division with no more than **ONE** arithmetic error, i.e.

- long division algorithm, e.g.

$$\begin{array}{r} 81 \text{ (error)} \\ 97 \overline{) 8827} \\ - 8730 \\ \hline 97 \\ - 97 \\ \hline 0 \end{array}$$

OR

$$\begin{array}{r} 91 \text{ r}2 \\ 97 \overline{) 8827} \\ - 7760 \\ \hline 1069 \text{ (error)} \\ - 970 \\ \hline 99 \\ - 97 \\ \hline 2 \end{array} \quad \begin{array}{l} 80 \times 97 \\ 10 \times 97 \\ 1 \times 97 \end{array}$$

- short division algorithm, e.g.

$$\begin{array}{r} 71 \text{ (error)} \\ 97 \overline{) 882^9 7} \end{array}$$

Up to
2m

Working must be carried through to reach a final answer for the award of **ONE** mark.

Sometimes an error in calculation leads to a remainder which equals the truncated decimal equivalent. In such cases when the remainder is expressed as a decimal, evidence of working leading to the decimal must be seen in order to condone the possible notation error. (See General Marking Principle 13, page 8.)

Short division methods **must** be supported by evidence of appropriate carrying figures to indicate the use of a division algorithm, and be a complete method. The carrying figure **must** be less than the divisor.

What have you learnt from this lesson?

What would you like more practice with going forward?

