

# Arithmetic: Spring Term 1.

**Mrs Brown's Group: Week 1.**

Wednesday 9<sup>th</sup> January 2021.

Date: Week 1



Title: Arithmetic

Title	Ingredients
Arithmetic	<ul style="list-style-type: none"><li>- Varied questions</li><li>- Methods</li><li>- Timings</li><li>- Checking answers</li><li>- Completing all questions</li><li>- 40/40 needed!</li></ul>

**Key words/terminology:**

# You do...



Title:	Method
--------	--------

**Complete these before you write the date or title:**

$4 - 9 =$

$8 - 9 =$

$7 - 12 =$

$2 - 7 =$

$5 - 13 =$

$3 - 6 =$

A large white rectangular area intended for student work. It contains a horizontal number line with 15 tick marks. In the bottom right corner of this area, there is a small logo that reads "edtech" with "www.edtech.org" below it.





# You do...



Title:	Method
--------	--------

$$0.4 \times 9 =$$

$$0.9 \times 8 =$$

$$0.7 \times 6 =$$

$$0.5 \times 9 =$$

$$0.3 \times 8 =$$

$$0.7 \times 7 =$$

What tips and tricks have we already learned for questions like this:



$$4 + (3 \times 5) =$$

$$\underline{\hspace{2cm}} \times 100 = 4300$$

# 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**

**2019 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

$$\boxed{\phantom{0000}} = 6,000 + 90$$

1 mark

2

$$\boxed{\phantom{0000}} = 8,275 + 82$$

1 mark

3

$$826 = 800 + \boxed{\phantom{000}} + 6$$

1 mark

4

$$\boxed{\phantom{000}} + 5 = 341$$

1 mark

5

$$9 \times 41 =$$

1 mark

6

$$5.87 + 3.123 =$$

1 mark

7

$180 \div 3 =$

1 mark

8

$120 \div 12 =$

1 mark

9

$213 \times 0 =$

1 mark

10

$91 \div 7 =$

1 mark

11

$\boxed{\phantom{000}} = 87 - 65$

1 mark

12

$602 - \boxed{\phantom{000}} = 594$

1 mark

13

$1,210 \div 11 =$

1 mark

16

$3^3 =$

1 mark

14

$25.34 \times 10 =$

1 mark

17

$101 \times 1,000 =$

1 mark

15

$60 \div (30 - 24) =$

1 mark

18

$20\% \text{ of } 3,000 =$

1 mark

19

$7 - 2.25 =$

1 mark

20

$0.9 \div 100 =$

1 mark

21

$9 - 1.9 =$

1 mark

22

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

1 mark

23

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

Show  
your  
method

2 marks

24

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

1 mark

25

3 7 | 8 8 8

Show  
your  
method

2 marks

26

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

1 mark

27

35% of 320 =

1 mark

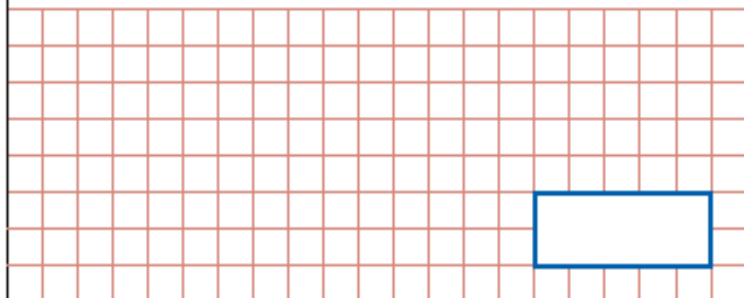
28

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

1 mark

29

$51\% \text{ of } 900 =$



1 mark

30

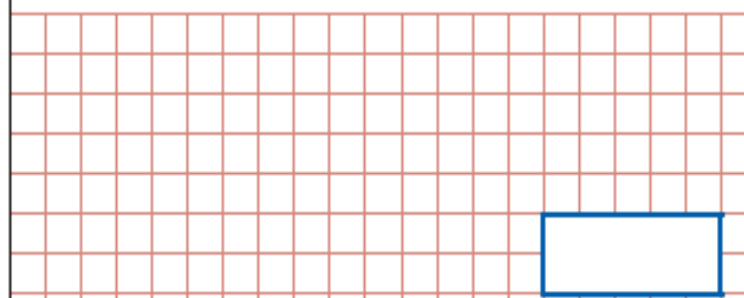
$$\begin{array}{r} 3468 \\ \times \quad 62 \\ \hline \end{array}$$

Show  
your  
method

2 marks

31

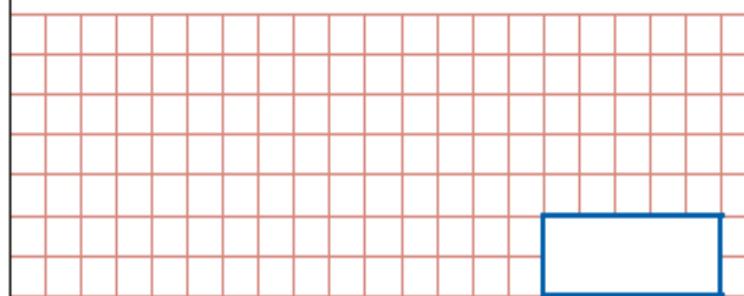
$\frac{2}{3} \div 3 =$



1 mark

32

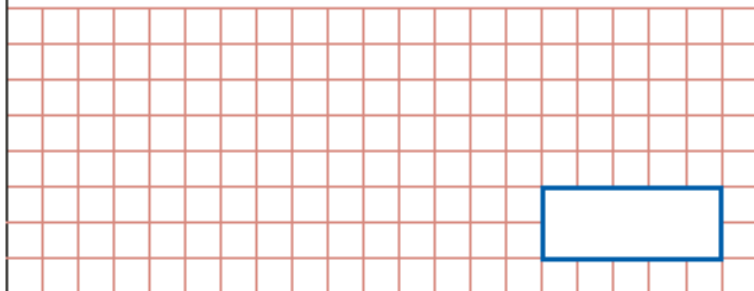
$2\frac{1}{2} - \frac{3}{4} =$



1 mark

**33**

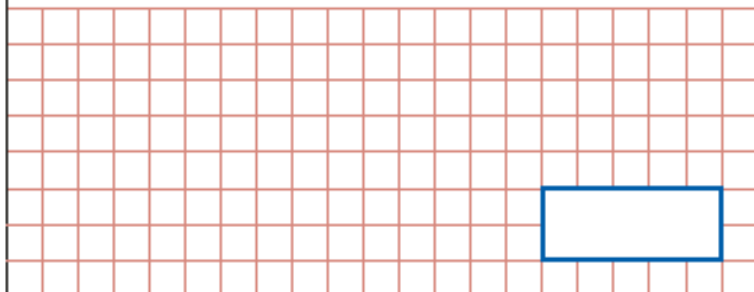
$36\% \text{ of } 450 =$



1 mark

**34**

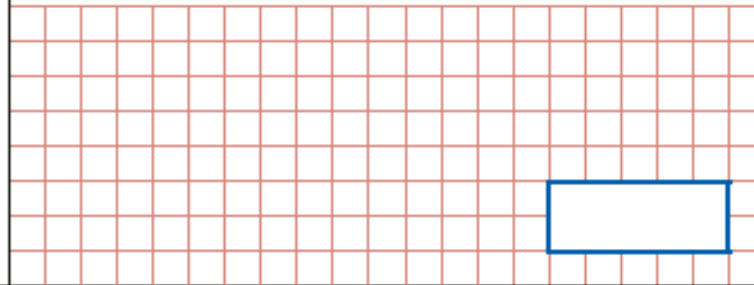
$1\frac{3}{4} \times 10 =$



1 mark

**35**

$\frac{5}{8} \times 540 =$



1 mark

**36**

$83 \overline{) 8051}$

Show  
your  
method

2 marks



# Answers:

1	1,040	1m	
2	2,525	1m	
3	$1\frac{1}{6}$ OR $\frac{7}{6}$	1m	Accept equivalent mixed numbers, fractions or an exact decimal equivalent, e.g. $1.1\bar{6}$ (accept any unambiguous indication of the recurring digit).  <b>Do not</b> accept rounded or truncated decimals.
4	505	1m	
5	285	1m	
6	5.714	1m	
7	5,100	1m	
8	264	1m	
9	8	1m	
10	668	1m	
11	4,088	1m	
12	$\frac{6}{25}$	1m	Accept equivalent fractions or an exact decimal equivalent, e.g. $\frac{24}{100}$ or 0.24
13	1,159	1m	
14	56	1m	
15	$\frac{2}{5}$	1m	Accept equivalent fractions or an exact decimal equivalent, e.g. $\frac{12}{30}$ or 0.4
16	1,200	1m	
17	83	1m	
18	0.004	1m	
19	2,345,000	1m	

# Answers:

Qu.	Requirement	Mark	Additional guidance
20	<p>Award <b>TWO</b> marks for the correct answer of 42</p> <p>If the answer is incorrect, award <b>ONE</b> mark for a formal method of division with no more than <b>ONE</b> arithmetic error, i.e.</p> <ul style="list-style-type: none"> <li>long division algorithm, e.g.</li> </ul> $  \begin{array}{r}  42 \text{ r}2 \\  17 \overline{) 714} \\  - \underline{680} \quad (40 \times 17) \\  \quad 36 \quad (\text{error}) \\  - \underline{34} \quad (2 \times 17) \\  \quad \quad 2  \end{array}  $ <p>OR</p> $  \begin{array}{r}  43 \quad (\text{error}) \\  17 \overline{) 714} \\  - \underline{680} \quad (40 \times 17) \\  \quad 34 \\  - \underline{34} \quad (2 \times 17) \\  \quad \quad 0  \end{array}  $ <ul style="list-style-type: none"> <li>short division algorithm, e.g.</li> </ul> $  \begin{array}{r}  4 \text{ 1 r}7 \\  17 \overline{) 71^2 4} \quad (\text{error in carrying digit})  \end{array}  $	Up to 2m	<p>Working must be carried through to reach a final answer for the award of <b>ONE</b> 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>
21	5.55	1m	

# Answers:

22	<p>Award <b>TWO</b> marks for the correct answer of 109,963</p> <p>If the answer is incorrect, award <b>ONE</b> mark for a formal method of long multiplication with no more than <b>ONE</b> arithmetic error, e.g.</p> <ul style="list-style-type: none"> <li> <math display="block">\begin{array}{r} 4781 \\ \times \quad 23 \\ \hline 14343 \\ 95620 \\ \hline 209963 \text{ (error)} \end{array}</math> </li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li> <math display="block">\begin{array}{r} 4781 \\ \times \quad 23 \\ \hline 14343 \\ 95630 \text{ (error)} \\ \hline 109973 \end{array}</math> </li> </ul>	Up to 2m	<p>Working must be carried through to reach a final answer for the award of <b>ONE</b> mark.</p> <p><b>Do not</b> award any marks if the error is in the place value, e.g. the omission of the zero when multiplying by tens:</p> $\begin{array}{r} 4781 \\ \times \quad 23 \\ \hline 14343 \\ 9562 \text{ (place value error)} \\ \hline 23905 \end{array}$
23	$\frac{3}{8}$	1m	Accept equivalent fractions or an exact decimal equivalent, e.g. 0.375
24	<p>Award <b>TWO</b> marks for the correct answer of 19,228</p> <p>If the answer is incorrect, award <b>ONE</b> mark for a formal method of long multiplication with no more than <b>ONE</b> arithmetic error, e.g.</p> <ul style="list-style-type: none"> <li> <math display="block">\begin{array}{r} 418 \\ \times \quad 46 \\ \hline 2508 \\ 16720 \\ \hline 18228 \text{ (error)} \end{array}</math> </li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li> <math display="block">\begin{array}{r} 418 \\ \times \quad 46 \\ \hline 2508 \\ 16620 \text{ (error)} \\ \hline 19128 \end{array}</math> </li> </ul>	Up to 2m	<p>Working must be carried through to reach a final answer for the award of <b>ONE</b> mark.</p> <p><b>Do not</b> 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"> <li> <math display="block">\begin{array}{r} 418 \\ \times \quad 46 \\ \hline 2508 \\ 1672 \text{ (place value error)} \\ \hline 4180 \end{array}</math> </li> </ul>
25	23.129	1m	

## Answers:

27	$\frac{1}{5}$	1m	Accept equivalent fractions or an exact decimal equivalent, e.g. $\frac{4}{20}$ or 0.2
28	$\frac{5}{16}$	1m	Accept equivalent fractions or an exact decimal equivalent, e.g. 0.3125
29	207	1m	<b>Do not</b> accept 207%
30	$3\frac{1}{6}$ OR $\frac{19}{6}$	1m	Accept equivalent mixed numbers, fractions or an exact decimal equivalent, e.g. $3.1\bar{6}$ (accept any unambiguous indication of the recurring digit). <b>Do not</b> accept rounded or truncated decimals. <b>Do not</b> accept $2\frac{7}{6}$
31	35	1m	<b>Do not</b> accept 35%
32	$\frac{5}{24}$	1m	Accept equivalent fractions or an exact decimal equivalent, e.g. $\frac{10}{48}$ or $0.208\bar{3}$ (accept any unambiguous indication of the recurring digit). <b>Do not</b> accept rounded or truncated decimals.
33	180	1m	
34	150	1m	<b>Do not</b> accept 150%
35	$85\frac{1}{2}$	1m	Accept equivalent fractions or an exact decimal equivalent e.g. $\frac{171}{2}$ or 85.5

# Answers:

36	<p>Award <b>TWO</b> marks for the correct answer of 38</p> <p>If the answer is incorrect, award <b>ONE</b> mark for a formal method of division with no more than <b>ONE</b> arithmetic error, i.e.</p> <ul style="list-style-type: none"><li>long division algorithm, e.g.</li></ul> $\begin{array}{r} 38 \text{ r}2 \\ 59 \overline{) 2242} \\ - 1770 \quad (30 \times 59) \\ \hline 474 \quad (\text{error}) \\ - 472 \quad (8 \times 59) \\ \hline 2 \end{array}$ <p>OR</p> $\begin{array}{r} 35 \quad (\text{error}) \\ 59 \overline{) 2242} \\ - 1770 \quad (30 \times 59) \\ \hline 472 \\ - 472 \quad (8 \times 59) \\ \hline 0 \end{array}$ <ul style="list-style-type: none"><li>short division algorithm, e.g.</li></ul> $\begin{array}{r} 37 \text{ r}48 \quad (\text{error}) \\ 59 \overline{) 224^{\wedge}2} \end{array}$	Up to 2m	<p>Working must be carried through to reach a final answer for the award of <b>ONE</b> 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>
----	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**What have you learnt from this lesson?**



