

Tuesday 2nd June 2020

II VI MMXX

Hello my amazing mathematicians!

We are going to begin with the challenge mat. Remember that it is optional as the main task takes a lot of time.

You may wish to try 2 or 3 questions before going on to the main task or you might want to move straight on to the main task. The choice is yours.

Whatever your decision, please remember that -

Activity mat 1 will be a little less challenging.

Activity mat 2 will be more challenging.

Maths Mat 1 -

Section 1

Complete the calculation:

$170 \times 4 = \boxed{}$

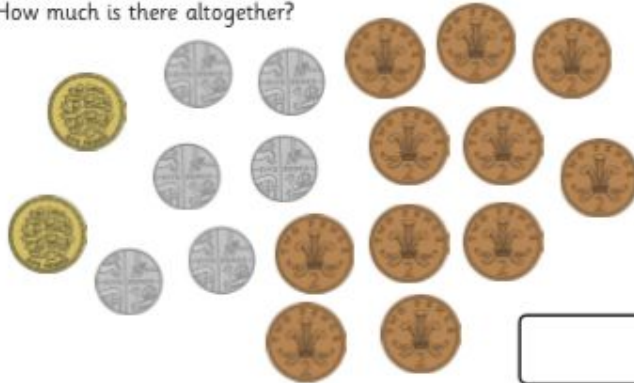
$120 \times 8 = \boxed{}$

$190 \times 3 = \boxed{}$

$220 \times 4 = \boxed{}$

Section 2

How much is there altogether?



Section 6

How many hours are in:

$300 \text{ minutes} = \boxed{}$

$420 \text{ minutes} = \boxed{}$

$210 \text{ minutes} = \boxed{}$

$135 \text{ minutes} = \boxed{}$

Section 3

Complete the following calculations:

$$\begin{array}{r} 16840 \\ - 3457 \\ \hline \end{array}$$

$$\begin{array}{r} 25819 \\ - 1394 \\ \hline \end{array}$$

$$\begin{array}{r} 18593 \\ - 3759 \\ \hline \end{array}$$

Section 4

There are 124 horses in a field. Half of the horses are coloured brown. 38 horses go into the stables. How many are left in the field?

Section 5

Look at these numbers:
5 9 12 20 30

Find the product of the three smallest numbers.

Section 7

What's the Magic Number?

Complete the grid.

X			
8			96
3	30		
5		45	

Section 8

Draw a rectangle with sides of 14.5cm and 12.5cm. What is the perimeter of the rectangle?

Mat 2 - challenging questions

Section 1

Circle the numbers where 4 is in the thousands place:

94 735 83 492 41 854

54 467 94 578 25 451

74 501 50 892 94 410

Section 2

Calculate the following in your head:

$43 + 29 = \boxed{}$

$17 + 66 = \boxed{}$

$85 - 46 = \boxed{}$

$91 - 34 = \boxed{}$

Section 3

Calculate the following in your head:

$3.4 \times 100 = \boxed{}$

$1.09 \times 100 = \boxed{}$

$450 \div 100 = \boxed{}$

$2330 \div 100 = \boxed{}$

Section 4

Use the $<$, $>$ or $=$ signs to compare these fractions:

$\frac{3}{5}$	$<$	$\frac{8}{10}$
$\frac{1}{4}$	$=$	$\frac{3}{12}$
$\frac{7}{8}$		$\frac{11}{16}$

Section 5

Write the following decimals in words:

$4.56 = \boxed{}$

$0.03 = \boxed{}$

$9.17 = \boxed{}$

$5.55 = \boxed{}$

Section 6

Complete the table to convert between millilitres and litres.

Millilitres	Litres
780ml	
	8l
1070ml	

Section 7

What is the common name of a regular quadrilateral? Draw one.

Section 8

Here is a table showing the favourite colours of children in a school.

Colour	Number
Blue	42
Orange	14
Pink	29
Green	21

What is the difference between the number of children who chose the most favourite colour and the least favourite colour?

For the main task we are going to continue to work from the White Rose site. We are going to multiply mixed numbers by an integer. Please follow the link carefully.

Please let the video guide you when tackling the activity.

1. Copy or click on the link (press Ctrl then click) <https://whiterosemaths.com/homelearning/>

Then click Year 5

The screenshot shows the White Rose Maths Home Learning page. At the top, there is a 'Summer Term Plans' banner with a 'Click here for more details' button. Below this is a 'Hello there, Parents and Carers!' section with text about COVID-19 and home learning. The main content is a grid of buttons for different year groups: Early Years, Year 1, Year 2, Year 3, Year 4, Year 5, Year 6, Year 7, Year 8, Year 9, Year 10, and By Topic. A blue arrow points to the 'Year 5' button. To the right of the grid is a 'Home Learning' sidebar menu with a 'Summer Term' section containing a list of year-level links from Year 1 to Year 10.

First, watch the video to support your learning and use it to work on the activity sheets below.

Lesson 2 - Multiply mixed numbers by integers

$4 \times 2\frac{2}{5} =$

Looking for 1
check if they
Alternatively,
from BBC Bi

06:42 | $2 = 8$ | $4 \times 2\frac{2}{5} = 1\frac{3}{5}$

Multiply mixed numbers by integers

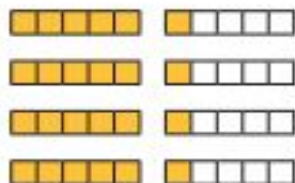
1 Complete the calculations.

a) $4 \times 1\frac{1}{5}$

$4 \times 1 = \square$

$4 \times \frac{1}{5} = \square$

$\square + \square = \square$

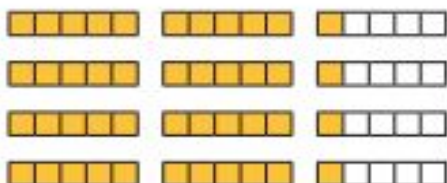


b) $4 \times 2\frac{1}{5}$

$\square \times 2 = \square$

$4 \times \square = \square$

$\square + \square = \square$



c) $4 \times 2\frac{2}{5}$

$\square \times \square = \square$

$4 \times \square = \square = \square$

$\square + \square = \square$

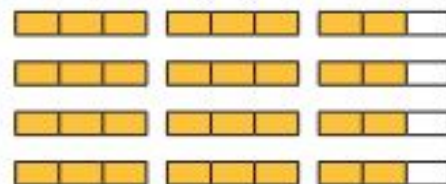


d) $4 \times 2\frac{2}{3}$

$\square \times \square = \square$

$\square \times \square = \square = \square$

$\square + \square = \square$



2 Complete the multiplications.

a) $3 \times 8\frac{2}{7} = \square$

d) $4 \times 6\frac{3}{19} = \square$

b) $2 \times 12\frac{2}{11} = \square$

e) $2\frac{2}{25} \times 12 = \square$

c) $6\frac{2}{11} \times 4 = \square$

f) $3\frac{1}{15} \times 8 = \square$

What is the same and what is different about your answers?

3 One bag of potatoes weighs $1\frac{3}{4}$ kg.



How much do 5 bags of potatoes weigh?

kg

4 Complete the calculations.

a) $5 \times 2\frac{2}{3} = 10 + \frac{10}{3} = \square$

b) $4\frac{3}{7} \times 5 = 20 + \square = \square$

c) $8 \times 2\frac{5}{12} = \square + \square = \square$

d) $7 \times 3\frac{1}{5} = \square + \square = \square$

e) $4\frac{2}{9} \times 8 = \square + \square = \square$

f) $11 \times 4\frac{3}{10} = \square + \square = \square$

5

$5 \times 3\frac{2}{11}$ is equal to
 $3 \times 5\frac{2}{11}$



Do you agree with Ron? _____

Explain why.

6

Eva drinks $3\frac{1}{3}$ litres of water a day.

How many litres of water does she drink in a week?

7

Here is a recipe for a birthday cake.



Butter $1\frac{3}{8}$ kg
Sugar $1\frac{5}{16}$ kg
Self-raising flour $2\frac{1}{4}$ kg
6 eggs

a) How much flour is needed for 3 birthday cakes?

 kg

b) Dora makes 4 birthday cakes.

How much more butter does she use than sugar?

 kg

Answers

Multiply mixed numbers by integers



1 Complete the calculations.

a) $4 \times 1\frac{1}{5}$

$4 \times 1 = 4$

$4 \times \frac{1}{5} = \frac{4}{5}$

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

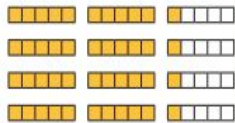


b) $4 \times 2\frac{1}{5}$

$4 \times 2 = 8$

$4 \times \frac{1}{5} = \frac{4}{5}$

$8 + \frac{4}{5} = 8\frac{4}{5}$



c) $4 \times 2\frac{2}{5}$

$4 \times 2 = 8$

$4 \times \frac{2}{5} = \frac{8}{5} = 1\frac{3}{5}$

$8 + 1\frac{3}{5} = 9\frac{3}{5}$

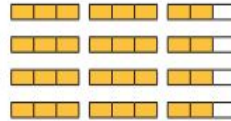


d) $4 \times 2\frac{2}{3}$

$4 \times 2 = 8$

$4 \times \frac{2}{3} = \frac{8}{3} = 2\frac{2}{3}$

$8 + 2\frac{2}{3} = 10\frac{2}{3}$



2 Complete the multiplications.

a) $3 \times 8\frac{2}{7} = 24\frac{6}{7}$

d) $4 \times 6\frac{3}{19} = 24\frac{12}{19}$

b) $2 \times 12\frac{2}{11} = 24\frac{4}{11}$

e) $2\frac{2}{25} \times 12 = 24\frac{24}{25}$

c) $6\frac{2}{11} \times 4 = 24\frac{8}{11}$

f) $3\frac{1}{15} \times 8 = 24\frac{8}{15}$

What is the same and what is different about your answers?

They all contain 24, which is the product of the integers. The fraction is different.

3 One bag of potatoes weighs $1\frac{3}{4}$ kg.

How much do 5 bags of potatoes weigh?



$8\frac{3}{4}$ kg

4 Complete the calculations.

a) $5 \times 2\frac{2}{3} = 10 + \frac{10}{3} = 13\frac{1}{3}$

b) $4\frac{3}{7} \times 5 = 20 + \frac{15}{7} = 22\frac{2}{7}$

c) $8 \times 2\frac{5}{12} = 16 + \frac{10}{3} = 19\frac{1}{3}$

d) $7 \times 3\frac{1}{5} = 21 + \frac{7}{5} = 22\frac{2}{5}$

e) $4\frac{2}{9} \times 8 = 32 + \frac{16}{9} = 33\frac{1}{9}$

f) $11 \times 4\frac{3}{10} = 44 + \frac{33}{10} = 47\frac{3}{10}$

5

$5 \times 3\frac{2}{11}$ is equal to $3 \times 5\frac{2}{11}$



Do you agree with Ron? Yes

Explain why.

$5 \times 3\frac{2}{11} = 15\frac{10}{11}$

$3 \times 5\frac{2}{11} = 15\frac{10}{11}$

6 Eva drinks $3\frac{1}{3}$ litres of water a day.

How many litres of water does she drink in a week?

$25\frac{1}{3}$ l

7 Here is a recipe for a birthday cake.



Butter $1\frac{3}{8}$ kg
Sugar $1\frac{5}{16}$ kg
Self-raising flour $2\frac{1}{4}$ kg
6 eggs

a) How much flour is needed for 3 birthday cakes?

$6\frac{3}{8}$ kg

b) Dora makes 4 birthday cakes.

How much more butter does she use than sugar?

$\frac{1}{4}$ kg

Challenge mat answers 1-

Section 1

Complete the calculation:

$170 \times 4 =$ **680**

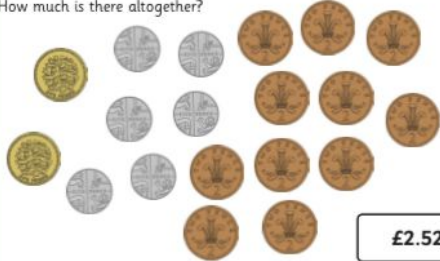
$120 \times 8 =$ **960**

$190 \times 3 =$ **570**

$220 \times 4 =$ **880**

Section 2

How much is there altogether?



£2.52

Section 6

How many hours are in:

300 minutes = **5 hours** 420 minutes = **7 hours**

210 minutes = **$3\frac{1}{2}$ hours** 135 minutes = **$2\frac{1}{4}$ hours**

Section 3

Complete the following calculations:

$$\begin{array}{r} 1\ 6\ 8\ 4\ 0 \\ -\ 3\ 4\ 5\ 7 \\ \hline 1\ 3\ 3\ 8\ 3 \end{array}$$

$$\begin{array}{r} 2\ 5\ 8\ 1\ 9 \\ -\ 1\ 3\ 9\ 4 \\ \hline 2\ 4\ 4\ 2\ 5 \end{array}$$

$$\begin{array}{r} 1\ 8\ 5\ 9\ 3 \\ -\ 3\ 7\ 5\ 9 \\ \hline 1\ 4\ 8\ 3\ 4 \end{array}$$

Section 4

There are 124 horses in a field. Half of the horses are coloured brown. 38 horses go into the stables. How many are left in the field?

86

Section 5

Look at these numbers:
5 9 12 20 30

Find the product of the three smallest numbers.

540

Section 7

What's the Magic Number?

Complete the grid.

X	10	9	12
8	80	72	96
3	30	27	36
5	50	45	60

Section 8

Draw a rectangle with sides of 14.5cm and 12.5cm. What is the perimeter of the rectangle?

54cm

Challenge mat 2 answers -

Section 1

Circle the numbers where 4 is in the thousands place:

94 735 83 492 41 854

54 467 **94 578** 25 451

74 501 50 892 **94 410**

Section 2

Calculate the following in your head:

$43 + 29 =$ **72**

$17 + 66 =$ **83**

$85 - 46 =$ **39**

$91 - 34 =$ **57**

Section 3

Calculate the following in your head:

$3.4 \times 100 =$ **340**

$1.09 \times 100 =$ **109**

$450 \div 100 =$ **4.5**

$2330 \div 100 =$ **23.3**

Section 4

Use the <, > or = signs to compare these fractions:

$\frac{3}{5}$	<	$\frac{8}{10}$
$\frac{1}{4}$	=	$\frac{3}{12}$
$\frac{7}{8}$	>	$\frac{11}{16}$

Section 5

Write the following decimals in words:

4.56 = **four point five six**

0.03 = **nought point nought three /zero point zero three (or variations)**

9.17 = **nine point one seven**

5.55 = **five point five five**

Section 6

Complete the table to convert between millilitres and litres.

Millilitres	Litres
780ml	0.78l
8000ml	8l
1070ml	1.07ml

Section 7

What is the common name of a regular quadrilateral? Draw one.



square

Section 8

Here is a table showing the favourite colours of children in a school.

Colour	Number
Blue	42
Orange	14
Pink	29
Green	21

What is the difference between the number of children who chose the most favourite colour and the least favourite colour?

28