

$$3 \times 2 = 6$$

HELLO!

Today we are going to do revision on
multiplication and division 2

(Long multiplication and division, BIDMAS)



Arithmetic Warm Up

Add and subtract large numbers

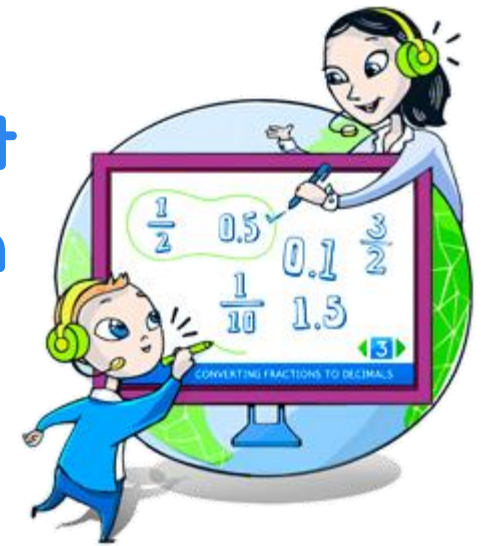
1. $82\,945 + 234\,852 =$

2. $482\,852 - 79\,465 =$

$$\begin{array}{r} 234852 \\ + 82945 \\ \hline \end{array}$$

$$\begin{array}{r} 482852 \\ - 79465 \\ \hline \end{array}$$

Revision on long and short multiplication and division



First we are going to revise:



Long multiplication



Order of operations (BIDMAS)

Revision: Long multiplication

Explain the working out of this sum

$$\begin{array}{r} 54 \\ \times 32 \\ \hline \end{array}$$



Question 1



Complete

What do you notice?

Write the two missing digits to make this long multiplication correct.

What do you know?

$$\begin{array}{r}
 \\
 2 \\
 \times 6 \\
 \hline
 1 \\
 4 \\
 \hline
 6
 \end{array}$$

Can you show your working out?

How could you extend the question?

Question 2



Complete

What do you notice?

Maria bakes cakes and sells them in bags.

She uses this formula to work out how much to charge for one bag of cakes.

$$\text{Cost} = \text{number of cakes} \times 27\text{p} + 15\text{p for the bag}$$



What do you know?

How much will a bag of 12 cakes cost?

Can you show your working out?

How could you extend the question?

£

Revision: Order of operations

There is an agreed order of operations for calculations

BIDMAS

Brackets

Indices

Division or

Multiplication (left to right)

Addition or

Subtraction (left to right)

'Indices' are powers, for example, 2^3 or 4^2



Work these out:

a) $5 \times 4 - 2 \times 3 + 16 \div 4 =$

b) $3^3 + (5 \times 3 - 2^2) =$

Question 4



Complete

What do you notice?

Here are five number cards.

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

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

$$2$$

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

$$3\frac{1}{2}$$

Use **three** of the number cards to make this calculation correct.

$$\left(\square + \square \right) \times \square = 10$$


What do you know?

How could you extend the question?

Can you show your working out?

Let's review:



 I can use long multiplication to multiply 2-digit numbers by 2-digit numbers

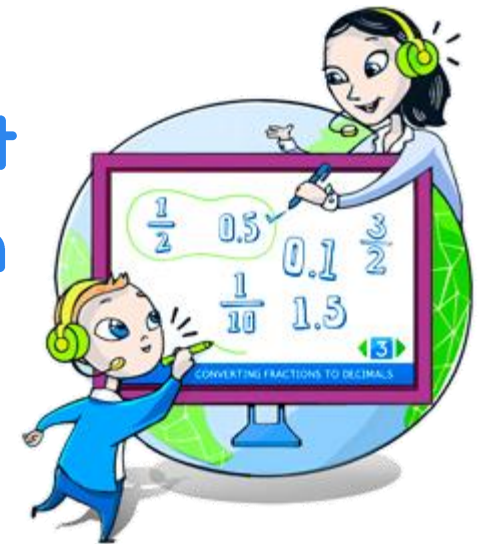
 I can use the correct order of operations to solve problems

Draw a circle around the smiley face to show how you feel about what we've just been doing.



Is there something you would like to go over before we move on?

Revision on long and short multiplication and division



Now we are going to revise:



Short division



Long division



Know when you would use long or short division

Revision: Short division with remainders

$1 \times 4 = 4$
$2 \times 4 = 8$
$3 \times 4 = 12$
$4 \times 4 = 16$
$5 \times 4 = 20$
$6 \times 4 = 24$
$7 \times 4 = 28$
$8 \times 4 = 32$
$9 \times 4 = 36$

$$\begin{array}{r} 393r2 \\ \hline 4 \overline{) 1574} \end{array}$$

So, $1574 \div 4 = 393r2$


The remainder can also be written as $\frac{2}{4}$ or $\frac{1}{2}$


Talk through each part of this short division


Question 4




Complete

 What do you notice?

 $6 \times \boxed{} = 405$

What do you know? 

 Can you show your working out?

How could you extend the question? 

Revision: Long Division

1. Divide
2. Multiply
3. Subtract

$1 \times 13 = 13$
$2 \times 13 = 26$
$3 \times 13 = 39$
$4 \times 13 = 52$
$5 \times 13 = 65$

Couldn't I just use short division?

$$13 \overline{) 4361}$$

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Worked out answer

$$\begin{array}{r}
 335 \text{ r } 6 \\
 \hline
 13 \overline{) 4361} \\
 \underline{3900} \\
 461 \\
 \underline{390} \\
 71 \\
 \underline{65} \\
 6
 \end{array}$$

$1 \times 13 = 13$
$2 \times 13 = 26$
$3 \times 13 = 39$
$4 \times 13 = 52$
$5 \times 13 = 65$

The remainder
can also be
written as:

$$\frac{6}{13}$$

Talk through
the method for
this long
division again

Question 5




Complete


 What do you notice?

Circle the numbers that represent the remainder after the division $328 \div 24$

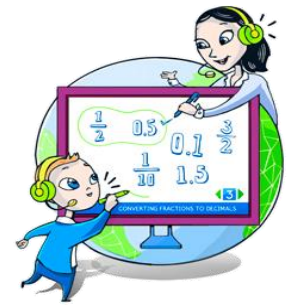
$$\frac{1}{2} \quad \frac{2}{3} \quad 24 \quad 16 \quad \frac{16}{24}$$

What do you know? 

 Can you show your working out?

How could you extend the question? 

Let's review:



I can use the correct method for both short and long division



I understand when it is beneficial to use long division rather than short division

Draw a circle around the smiley face to show how you feel about what we've just been doing.



Is there something you would like to go over before we move on?