THIRD SPACE LEARNING

$3 + 2 = 6$

HELLO!

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

(Long multiplication and division, BIDMAS)

THIRD SPACE LEARNING

Arithmetic Warm Up
Add and subtract large numbers

1. 82 945 + 234 852 = ☐

2. 482 852 – 79 465 = ☐

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

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

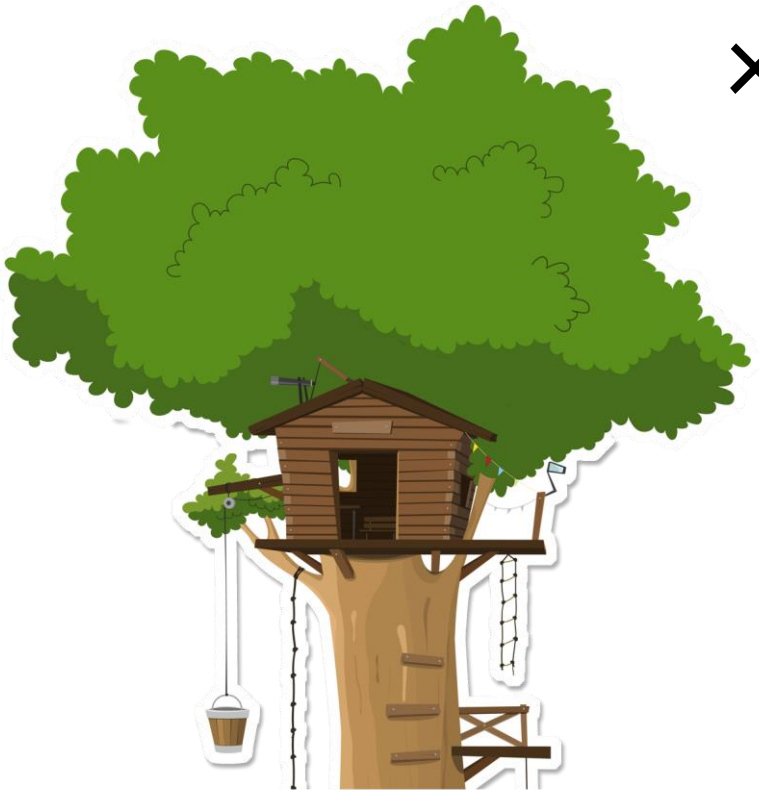
THIRD SPACE LEARNING

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

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

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Question 1

Complete

What do you notice?

What do you know?

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

$$\begin{array}{r} \ 2\ \square \\ \times\ \square\ 6 \\ \hline 1\ 4\ 4 \\ 4\ 8\ 0 \\ \hline 6\ 2\ 4 \end{array}$$

Can you show your working out?

How could you extend the question?

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Question 2

Complete

What do you notice?

What do you know?

Maria bakes cakes and sells them in bags.

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

Cost = number of cakes x 27p + 15p for the bag

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

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

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Question 4

Complete

What do you notice?

What do you know?

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.

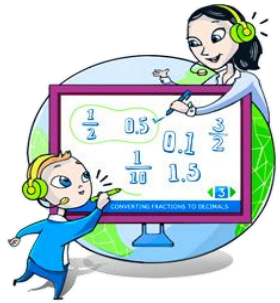
$(\square + \square) \times \square = 10$

Can you show your working out?

How could you extend the question?

THIRD SPACE LEARNING

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?

THIRD SPACE LEARNING

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 x 4= 4
2 x 4= 8
3 x 4= 12
4 x 4= 16
5 x 4= 20
6 x 4 = 24
7 x 4 = 28
8 x 4 = 32
9 x 4 = 36

$$\begin{array}{r} 3\ 9\ 3\ r\ 2 \\ \hline 4\ \big)\ 1\ 5^{3}\,7^{1}4 \end{array}$$

So, $1574 \div 4 = 393$ r 2

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

Talk through each part of this short division

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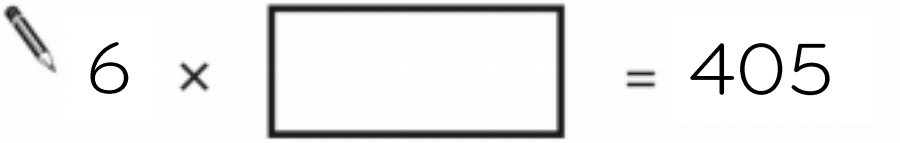
Question 4

Complete



What do you notice?

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 x 13 = 13
2 x 13 = 26
3 x 13 = 39
4 x 13 = 52
5 x 13 = 65

$$13 \overline{)\,4361}$$

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Worked out answer

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

The remainder can also be written as: $\frac{6}{13}$

1 x 13 = 13
2 x 13 = 26
3 x 13 = 39
4 x 13 = 52
5 x 13 = 65

Talk through the method for this long division again

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Question 5

Complete

What do you notice?

What do you know?

Circle the numbers that represent the remainder after the division 328 ÷ 24

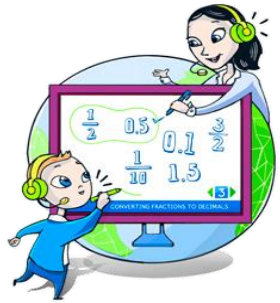
$\frac{1}{2}$ $\frac{2}{3}$ 24 16 $\frac{16}{24}$

Can you show your working out?

How could you extend the question?

THIRD SPACE LEARNING

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?