

$$\frac{4}{?} = \frac{2}{3}$$

$$\frac{2}{16} = \frac{?}{8}$$

HELLO!

Today we are going to revise Algebra

$$\frac{4}{6} = \frac{8}{?}$$

Use the space under each question to show your working out.

Arithmetic Warm Up (Large numbers)

Try to do this one mentally!



1. $87763 + 45408 =$





$$\begin{array}{r} 87763 \\ + 45408 \\ \hline \end{array}$$

2. $600\,000 - 500 =$

Revision on Algebra

Today we are going to revise how to:



-  use words, letters or shapes to represent unknown number in formulae.
-  use formulae
-  solve equations
-  create, describe and continue linear number sequences (number patterns)

Revision: Understanding and using formulae

Words, letters and shapes are used in algebra to represent actual numbers.

The amount of pocket money Kate gets each week depends on the amount of chores she completes. This formula (rule) shows how her pocket money is calculated.



$$T = 35c + 50$$

T = the total amount of pocket money Kate gets in pence.

c = the number of chores she completes.

True or false?

Kate gets more money the more chores she does.



If Kate completes 4 chores this week, how much pocket money will she get?

Revision: Creating and using formulae



Abby gets paid £10 for delivering leaflets and then gets an extra 20p for each leaflet given out.

If: T = the total amount of money Abby earns in pence
 L = the number of leaflets she delivers

Now write a formula to represent this situation:



If Abby delivers 150 leaflets, how much money will she earn that day? Write your answer in pence (p) and then in pounds (£)

Revision: Using formulae

To find the area of any triangle we use the formula:

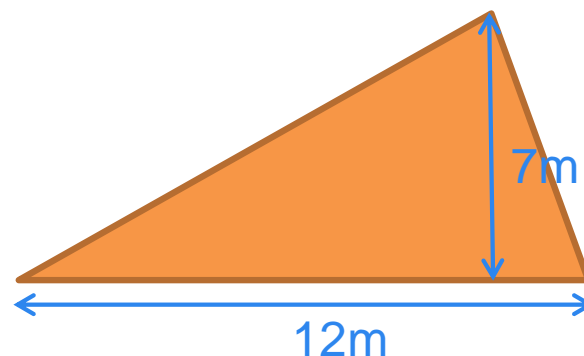
$$A = \frac{b \times h}{2}$$

Where:

A = Area of the triangle

b = length of the base of the triangle

h = height of triangle



What is the area of this triangle?

Question 1

 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.


$$\text{Cost} = \text{number of cakes} \times 20\text{p} + 15\text{p for the bag}$$

How much will a bag of 12 cakes cost?

£

What do you know? 

 Can you show your working out?

How could you extend the question? 

Let's review:



I can create and understand formulae



I can use formulae

How do you feel about what we've been doing?



Is there something you would like to go over?

Revision: Solving equations

You can think of the equal sign (=) as a set of balancing scales. In order to solve an equation, the numbers need to balance.



What numbers could go in the boxes to make this equation equal?

$$\begin{array}{ccc}
 7 \times & \boxed{} & \boxed{} \\
 \underbrace{} & & \underbrace{} \\
 \downarrow & & \downarrow \\
 \boxed{} & = & \boxed{}
 \end{array}$$

Revision: Solving equations


1. Solve this one



$$\begin{array}{ccc}
 14 - & \boxed{} & \boxed{} \\
 \underbrace{\phantom{14 - - }} & & \underbrace{\phantom{14 - - }} \\
 \downarrow & & \downarrow \\
 \boxed{} & = & \boxed{}
 \end{array}$$

2. Think of another pair of numbers that could solve this equation.

Question 4

 Complete

 What do you notice?

If  and  and for two different whole numbers,

and:


$$\text{★} + \text{😊} = 18$$

$$\text{★} \times \text{😊} = 45$$


Find the value of each shape

$$\text{★} = \boxed{}$$

$$\text{😊} = \boxed{}$$

What do you know? 

 Can you show your working out?

How could you extend the question? 

Revision: Creating, describing and continuing linear number sequences

A number sequence is a pattern of numbers that follow a rule.

1. Fill in the missing terms

11, 18, 25, 32,

The rule is:

So what number would go before 11? How did you work it out?

2. Now try this one

27, 21, 15,

The rule is:

So what number would go before 27? How did you work it out?

Revision: Describing and continuing linear number sequences using a formula

Vicki makes a pattern with some counters

Can you write a rule to work out how many counters there would be in Pattern 10 (10th term)?

Pattern 1



5

Pattern 2



8

Pattern 3



11


Pattern number (n)	1	2	3	4	10
Number of counters (C)	5	8	11		

Look at the pattern – how many counters are added on each time? Can you see which two counters stay the same each time?



The rule is:

Question 3

 What do you notice?

4, 9, 14, 19, 24

Tick the rule that describes the sequence of numbers

n = pattern number

$$2n + 5$$


$$4n - 2$$

$$5n - 1$$

$$3n + 5$$

What do you know? 

 Can you show your working out?

How could you extend the question? 



Let's review:

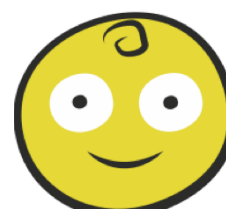


I can solve simple equations.



I can create, describe and continue linear number sequences using a formula.

How do you feel about what we've been doing?



Is there something you would like to go over?