

Maths SATs Survival

Revision Guide and Quiz

Algebra



twinkl

11.5.20

LO: to use simple formulae

11.5.20

LO to use simple formulae

Key Vocabulary in Algebra

Equation – A number sentence which uses an equal sign to separate two *expressions* which have the same value.

$$5 + 15 = 30 - 10$$

Expression – Groups of numbers, *variables* and operation symbols that give a value.

$$2y \text{ or } g + 7$$

Variable – A value represented by a letter or symbol.

$$x = 5 \text{ or } y = 3$$

A formula shows the relationship between different variables.

The values of the variables may change but the relationship between them stays the same.

The most common examples of formulas are found in the measurement of 2D shapes.

Remember that in algebra the multiplication sign is dropped to prevent confusion with the letter x , and the division sign is shown using a fraction line.

Formula for calculating the area of a rectangle:

$$\text{Area} = \text{Length} \times \text{Width} \\ a = lw$$

Formula for calculating the area of a triangle:

$$\text{Area} = (\text{base} \times \text{height}) \div 2 \\ a = \frac{bh}{2}$$

Identify if this statement is true or false.

There are 236 packets of balloons and each packet contains 28 balloons.
Altogether there are more than 6000 balloons.

True

False

Try again!

Identify if this statement is true or false.

There are 150 beans in a can of beans.
If there are 6450 beans altogether,
then over 50 tins have been opened.

True

False

Correct!

Quiz

Use simple formulae

Use the formulae $\text{Area} = \text{Length} \times \text{Width}$ to calculate the area of this rectangle.



31.1cm^2

31.4cm^2

31.2cm^2

Try again!

Quiz

Use simple formulae

Use the formulae $\text{Area} = (\text{base} \times \text{height}) \div 2$ to calculate the area of a triangle with a base of 12cm and height of 15.5cm.

93cm²

186cm²

95cm²

Choose another objective

Try again!

Independent work

Complete the simple formulae worksheet.

12.5.20

LO: to generate and describe linear number sequences.

Revise

Generate and describe linear number sequences

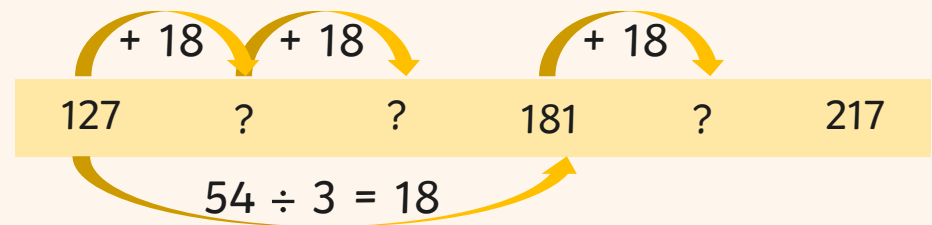
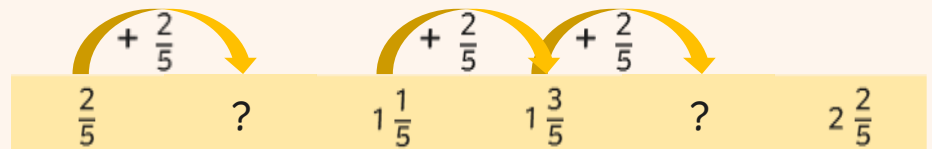
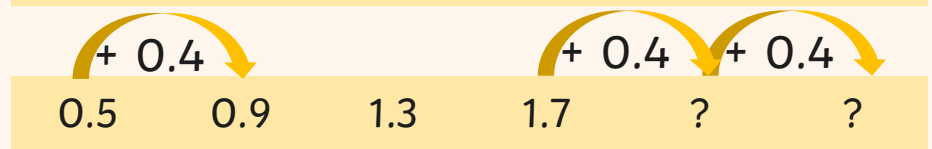
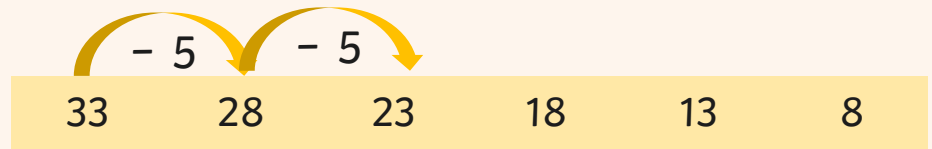
A linear number sequence is a sequence where each value increases or decreases by the same amount each time. Each number in a linear number sequence is called a **term**. The constant change between each number is called the **term to term rule**.

To identify the term to term rule, find the difference between two adjacent terms.

When you know the term to term rule, you can use it to find the next number in the sequence.

It can also be used to find a missing number within a sequence.

Sometimes there may be no adjacent terms to use to find the term to term rule. In this instance find the difference between the closest two terms, and divide the difference by the number of terms between them.



Quiz

Generate and describe
linear number sequences

What is the next number in this linear
number sequence?

16, 31, 46, 61,

?

76

71

66

Try again!

Quiz

Generate and describe
linear number sequences

What is the next number in this linear
number sequence?

145, 123, ?, 79, 57

99

102

101

Try again!

Quiz

Generate and describe
linear number sequences

What is the term to term rule for this linear number sequence?

57, , , 171, 209

+ 37

+ 38

+ 39

Try again!

Quiz

Generate and describe
linear number sequences

What is the next number in this linear
number sequence?

22, 14, 6, -2,

?

- 6

- 8

- 10

Try again!

Quiz

Generate and describe linear number sequences

What is the next number in this linear number sequence?

$\frac{3}{8},$

$\frac{3}{4},$

$1\frac{1}{8},$

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

$1\frac{7}{8},$

?

$2\frac{1}{2}$

$2\frac{1}{4}$

$2\frac{1}{8}$

Choose another objective

Try again!

Independent work

Choose between mild (1 star), spicy (2 stars) or extra-spicy (3 stars)

The stars are at the bottom of the sheet.

You can self mark using the answers.