St John Fisher RC Primary School
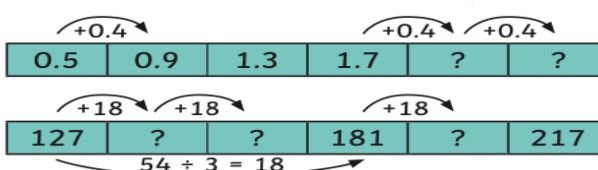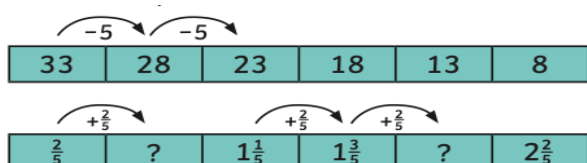## Year 6 Maths Knowledge Organiser
Spring One - Block 2 – Algebra (1)

Objectives	Teacher
• I can use simple formulae.	
• I can create describe linear number sequences.	
• I can record missing number problems algebraically.	

Algebra

Linear number sequences. A number sequence that increases or decreases by the same amount each time

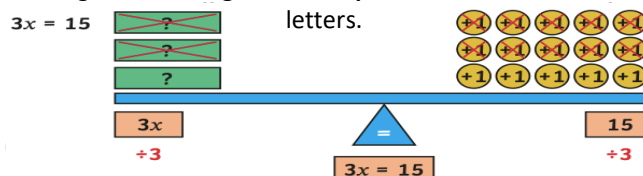
A **formula** is a special type of equation that shows the link between different substituted variables.

Area of rectangle = length x width
Area of a triangle = (base x height) divided by 2
(12.5 x hours worked) + 25 = cost of job

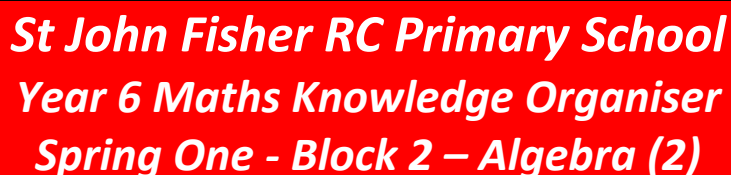In algebra, **missing number equations** are shown with letters.

Key Vocabulary

Term to term rule	A sequence where the next term is taken from the previous one.
Variable	A quantity that can be of different numerical values.
Unknown	A quantity that is not known or calculated yet.
Expression	A group of numbers, letters and mathematical operation symbols.
Equation	A number statement that ends in an equals (=) sign.
Formula	A special type of equation that shows the link between different substituted variables.
Substitution	To replace something with something else.
Enumerate	To work out the number of something one at a time.

Sentence Stems

If the input is _____ , then the output is _____	First, I'm going to _____ then I'm going to _____
If the input is _____ and the output is _____ , then the function is _____	If _____ is worth _____ then _____ is worth _____

Assessment

St John Fisher RC Primary School
Year 6 Maths Knowledge Organiser
Spring One - Block 2 – Algebra (2)

Objectives	Teacher
• I can find pairs of numbers which complete an equation with two unknowns.	
• I can create a list of possibilities of the combination of two variables.	

Algebra

In an equation with two unknown numbers, there may be **several** possible values for the unknowns that will balance the equation.

$ab = 18$	
a	b
1	18
2	9
3	6
6	3
9	2
18	1

$2a + b = 10$	
a	b
2	6
3	4
4	2
5	0

An **expression** is a group of numbers, letters and operations.

Add 14 to a	$a + 14$
Subtract 20 from b	$b - 20$
Multiply c by 4	$4c$
12 more than d	$d + 12$
Multiply e by 3 and subtract 5	$3e - 5$
Add 12 to f and then multiply by 2	$2(f + 12)$

An **equation** is a number statement with an equals (=)

$a + 14 = 20$
$b - 20 = 15$
$4c = 28$
$d + 12 = 30$
$3e - 5 = 10$
$2(f + 12) = 44$

An equation is a number statement with an equal sign (=). Expressions on either side of the equal sign are of equal value.

Key Vocabulary

Term to term rule	A sequence where the next term is taken from the previous one.
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Equation	A number statement that ends in an equals (=) sign.
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Sentence Stems

The first step in solving the equation is _____ The second step in solving the equation is _____	_____ more/less than _____ is equal to _____ can be written as the equation _____ = _____
	The equation means that the expression _____ is equal to _____

Assessment