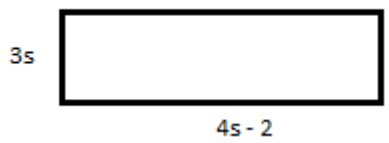
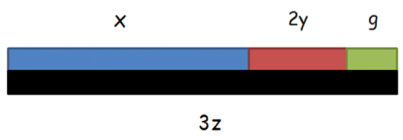
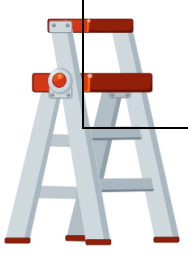
How do you solve an equation?

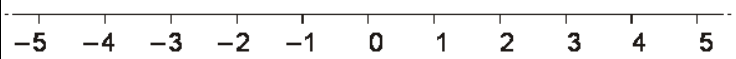
Percentage	I can …	Prove it!
84%	**I can change the subject of a formula involving squares and square roots.**	1) The formula for a dose of adult medicine (A) is $A = 2c^2 + 8$ Create a formula to calculate the appropriate child's dose (c).
80%	**I can factorise linear expressions.** **I can factorise and solve quadratics.**	1) Factorise the linear expressions below: a) $6x + 9$ b) $10x - 5$ 2) Factorise and solve the quadratics below: a) $x^2 + 10x + 21$ b) $x^2 - x - 2$
76%	**I can solve simultaneous equations.** **I can expand double brackets.** **I can solve equations with unknowns on both sides.** **5.9 - I can translate real world problems into algebraic expressions.** **5.10 - I can solve simple problems involving perimeter.**	1) Solve the following: 2) $2x + 5y = 19$ $2x + 3y = 28$ x= y= 3) $3x + 10y = 59$ $7x - 3y = 6$. x= y= 4) Expand $(x + 4)(x - 4)$ 5) Solve $6x - 2 = 2x + 8$ 6) A taxi firm charges £2.50 for a pick-up and 40p for each mile travelled. Create an algebraic expression for the firm to calculate their fares. The perimeter of the shape below is $46cm^2$. Create an equation for the shape below and find the value of s. 
72%	**5.7 - I can solve linear equations with one unknown** **5.8 – I can form linear equations**	1) Find the value of the letter in the equations below: $2x + 8 = 20$ $5x - 3 = 22$ $3(x - 4) = 6$ 2) Using the bar model below give an expression for x. 
68%	**I can solve one-step equations**	1) Find the value of the letter in the equation: a) $x + 6 = 10$ b) $2x = 18$ 2) $x - 9 = 20$
64%	**5.2 - I can find an expression for the nth term** **5.6 – I can simplify expressions**	1) Find the nth term rule for the sequence below: 5, 8, 11, 14, 17 2) Expand the brackets below: a) $2(x + 4) =$ $3(2x - 4) =$ 3) Simplify the expressions below: a) $3x + y - x =$ b) $6x - 2 - 2x =$

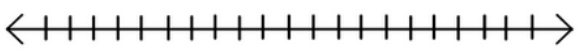


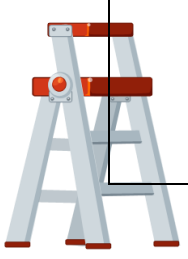
How do you solve an equation?

Percentage	I can …	Prove it!
60%	**I can simplify expressions with like terms, unlike terms and coefficients**	1) Explain whether the statement below is true of false: x + x + x – x = 3x
56%	**5.3 – I can generate a sequence from a rule** **5.5 – I can substitute into expressions**	1) List the first five terms of the sequence with the rule 5n – 1 2) What would be the 100th term in the sequence above? 3) Given that: a = 4 b = 3 c = 1 What is the value of each of the expressions below? i) a + 5 = ii) b – 2 = iii) c - 9 =
52%	**4.5 – I can multiply/divide negative integers** **4.6 – I can apply all four operations to negative integers**	1) Solve these calculations: a) $\frac{3}{7}+\left(-\frac{2}{7}\right)=$ b) $\frac{-4}{11}+\frac{12}{5}=$ 2) Complete the multiplication grid below: 3) a) – 12 ÷ 6 = ? b) 40 ÷ ? = -8 c) – 30 ÷ ? = 6 4) Place an inequality sign between the expressions below: 5c c + 5
48%	**I can add/subtract negative decimals**	1) Solve these calculations: a) 1.2 + (-2.3) b) -3.5 – 4.7 c) -0.2 - (-10.9)
44%	**4.3 - I can add and subtract negative integers** **4.4 – I can use inequalities to compare calculations**	1) Use a number line to sum the integers below: a) – 3 + 8 = b) – 4 + 2 = c) 0 + - 5 = 2) Place an inequality sign between the calculations below: a) -5 + 1 ___ -2 + 2 b) -3 - 4 ___ 3 + (-10)
40%	**4.1 - I can represent positive and negative numbers on a number line** **4.2 - I can order and compare negative numbers** **5.1 - I can continue and describe a number sequence**	1) Place these numbers on the number line below: 3, -4, 8, 2, -1, 0 2) Put the numbers below in to ascending order: -4, 0, 8, -2, -1, 2 3) a) What is happening in the number sequence below: 224, 244, 264, 284……. b) What will the next number in the sequence be?

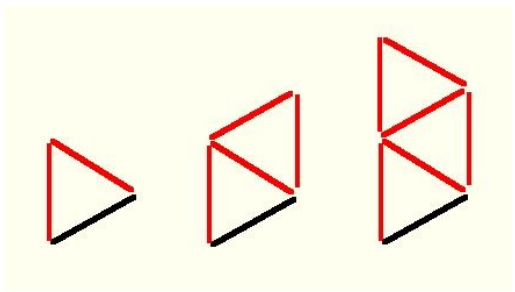
×	4	-2
7	28	
–6		







How do you solve an equation?



Key Words:

Expression

Equation

Sequence

Nth term

Solve

Simplify

Negative

Substitute

Expand

Factorise

Coefficient

Like term

Unlike term

Subject