**Algebra Review**

**Variable** – an unknown value represented by a letter.

Examples

* 3 + m = 4 m is the variable
* 2n = 10 n is the variable

**Algebraic expression** – is a mathematical statement where variables, numbers and operations are combined. There is no equal sign in an expression.

Examples

* 2a + 5 is an expression involving the variable a
* 5(y2 - 6) is another expression

**Algebraic equation** – is mathematical sentence with an equal sign. is where an algebraic expression is equal to something, which might be a number, or another algebraic expression.

Examples

* 2a + 5 = 7 is an equation
* 5(y2 - 6) = 3y + 8 is another equation

To solve an equation, we need to isolate the variable on one side of the equation. To do this we get rid of the numbers on that side of the equation.

When we solve an equation using algebra, **whatever we do to one side of the equation, we must do to the other side.**

Examples

* a + 2 = 5

a + 2 – 2 = 5 - 2

a = 3

* a – 2 = 5

a – 2 + 2 = 5 + 2

a = 7

* b = 6

2

2 x b = 6 x 2

2

b = 12