

Algebraic Notation

Key Vocabulary

Term—A single number or variable or a variable multiplied by a number e.g $4a$

Expression —A collection of terms e.g. $4a + 6a$ or $7a - 3$

Commutative — A calculation that can be carried out in any order and still give the same result

Coefficient—A number

Substitute—To change the value of a variable in an expression to a give value

Inverse—To carry out the opposite of an operation.

Algebraic Notation

- $4a = 4 \times a$, not $4+a$
- $st = s \times t$
- $m \times m = m^2$
- $t \div 5 = \frac{t}{5}$
- $2a + b = 2 \times a + b$
- $3a \times 4 = 12a$

Commutative

$$a + b = b + a$$

$$s \times t = t \times s$$

(Can be done in any order)

$$a - b \neq b - a$$

$$s \div t \neq t \div s$$

These are not commutative as they can't be calculated in any order.

Substitution

$$a = 4 \text{ and } b = 3$$

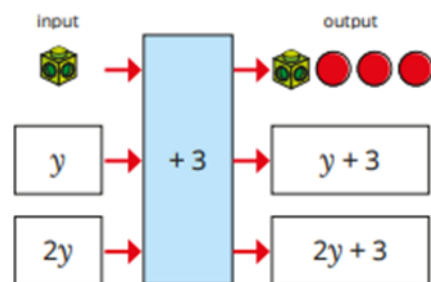
$$a + 5 = 4 + 5 = 9$$

$$2a = 2 \times 4 = 8$$

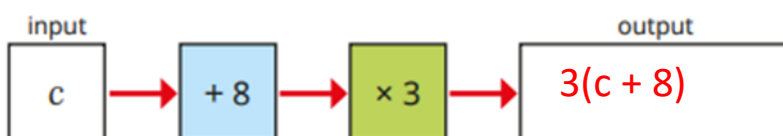
$$a - b = 4 - 3 = 1$$

$$4b + a = 4 \times 3 + 4 = 16$$

Function Machines



Two-step function machines



Remember, if you want to multiply both c and $+8$, you need to use brackets because of the order of operations.