4.2.21

Arithmetic

1. $\dfrac{4}{6} + \dfrac{2}{9}$

2. $\dfrac{4}{6} \times 3$

3. $\dfrac{4}{7} - \dfrac{2}{6}$

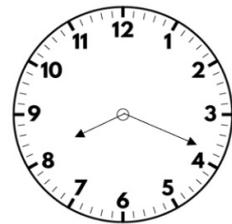4. $\dfrac{3}{4} + \dfrac{1}{5}$

5. $\dfrac{3}{6} - \dfrac{1}{4}$

6. $\dfrac{3}{7} \div 5$

FB4

Flashback 4

Year 6 | Week 5 | Day 1

1) 10% of a number is 40. What is the number?

2) Work out 50% of 120?

3) Multiply 4.36 by 100

4) Work out $\dfrac{3}{4} + \dfrac{3}{5}$

White Rose Maths

Problems of the Day

Problems of the Day 2020

Day 9

1. The cost of a pineapple is half the cost of a melon.

£3.50 each
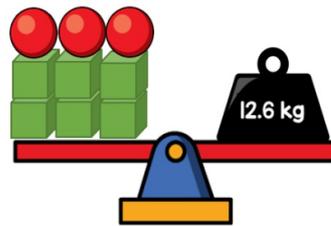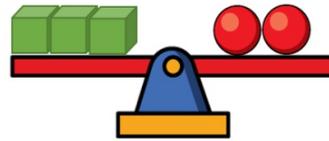
How much does the pineapple and melon cost altogether?

2. Tommy thinks of a number.

5 is a factor of my number

Does Tommy's number have to be odd? Explain your answer.

3. Gina balances some scales.

12.6 kg

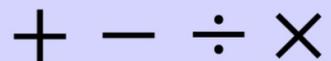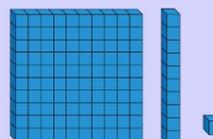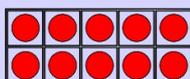What is the mass of a cube?

White Rose Maths

Forming expressions
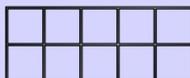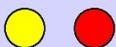
We can use letters to represent an unknown number.

4 + ? = 5

Instead of using a ?, we can replace this with a letter.
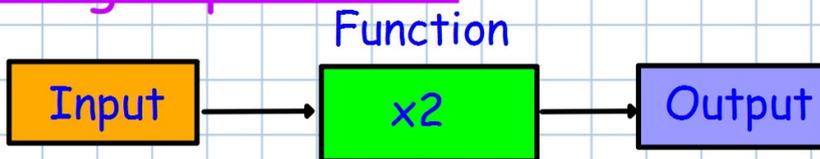
4 + a = 5, so 'a' must equal 1.
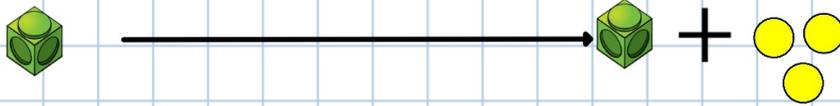
1 10 100 1,000 10,000

$+ \quad - \quad \div \quad \times$

$> \quad < \quad =$

Forming expressions

Function

| Input | +3 | Output |

We can replace the cube with 'y'

y $\longrightarrow$ y + 3

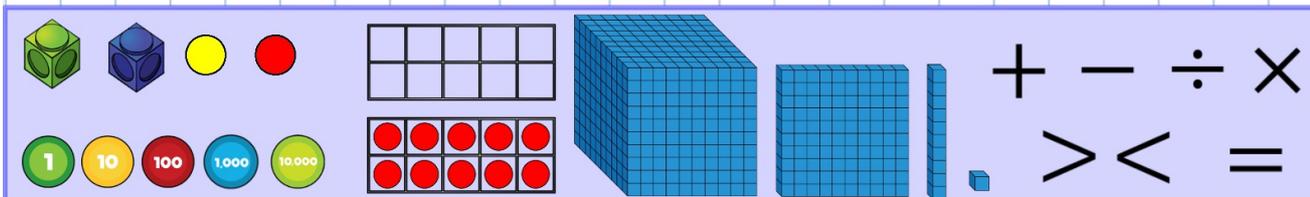# Forming expressions

Function

| Input | x2 | Output |

We can replace the cube with 'y'

y $\longrightarrow$ 2y

This means 2 lots of y or 2 x y

$+ - \div \times$
$> < =$

Forming expressions

We can use function machines to form algebraic expressions. If the input is a letter, we can carry out the function in the same way.

Input — Function — Output

Input	Function	Output
4	+2	6
10		12
y		y +2

Forming expressions

Functions

Input → x3 → +4 → Output
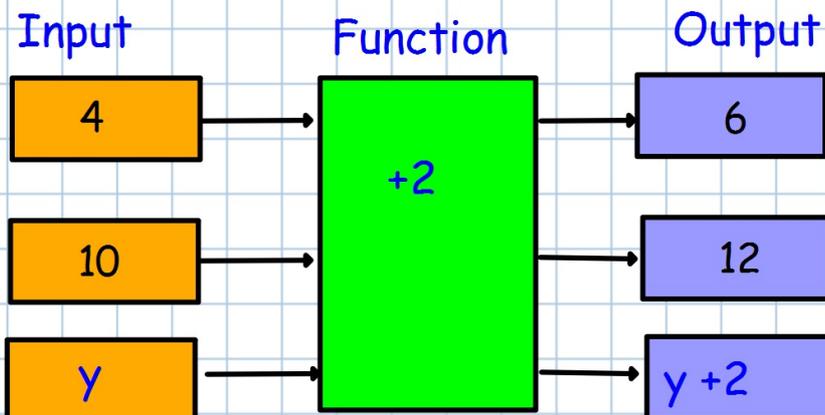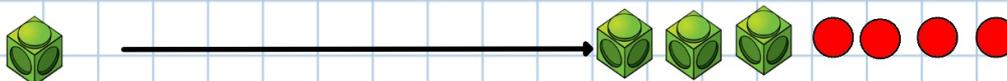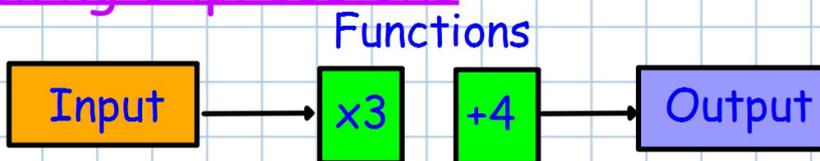
We can replace the cube with 'y'

y ⟶ 3y + 4

This means 3 lots of y or 3 x y
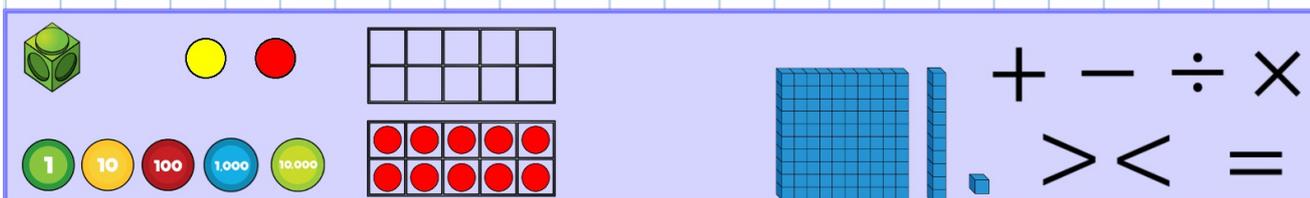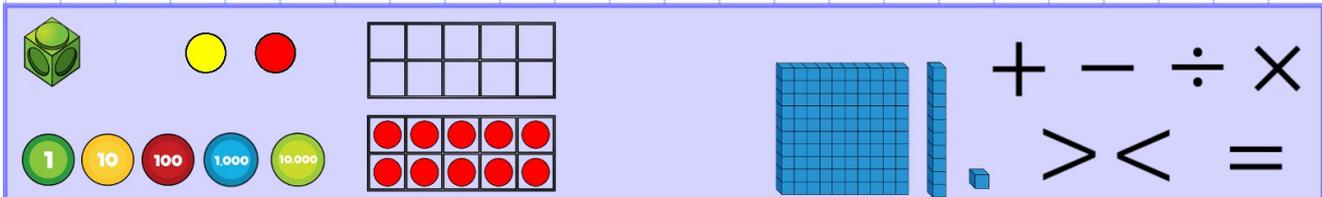
Simplifying expressions

We can simplify the expressions that we are given or that we have recorded.

simplified

$$2y + 2 + y \qquad 3y + 2$$

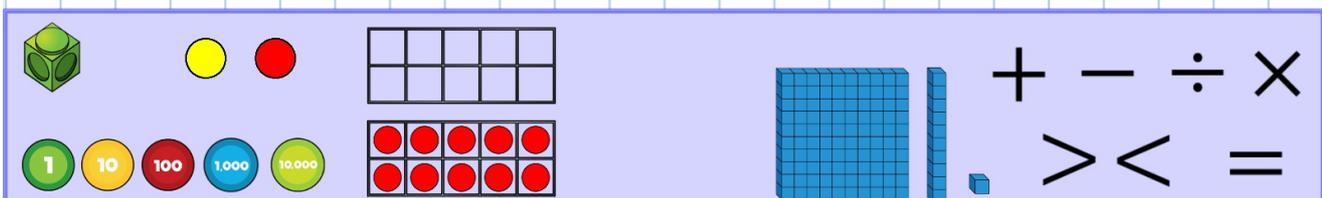We can add up all of the 'ys' that we have and then record the numbers

+ − ÷ ×
> < =

Simplifying expressions

We can cimplify any letter as long as they are the same letter

$$6a + 4a \longrightarrow 10a$$

We can't simplify this example below as they are different letters

$$3x + 2z \longrightarrow 3x + 2z$$

+ − ÷ ×
> < =

4.2.21   Forming expressions

Vocabulary
- algebra
- function
- input
- output
- one-step
- two-step
- expression
- algebraic input

4.2.21   Forming expressions

Today we are learning to form expressions suing letters and numbers to explain an input and output.

I will be successful if:
- I identify the input and output (as algebraic expressions).
- I identify the effetc of the function on the input.
- I can group 'like terms' e.g 2+a = 3a

Plenary

True or False?

True or False? Forming expressions

In the expression $3y + 2$ the letter y could represent any number.