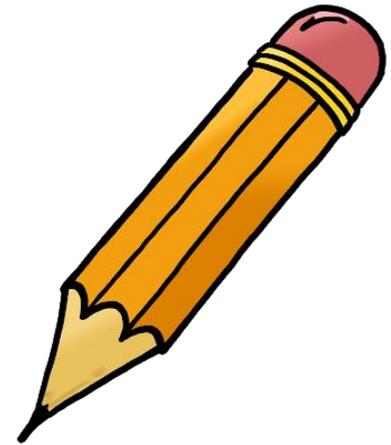
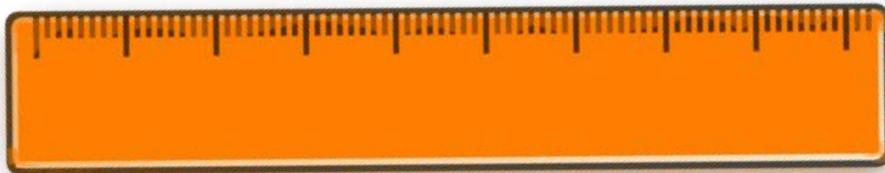


Year 6

Home learning

Maths

Day 1. Algebra



Algebra is a puzzle

- What is the missing number?

$$\square - 2 = 4$$

The answer is **6** because $6 - 2 = 4$

- In Algebra we don't use blank boxes, we use a letter (usually an x or y, but any letter is fine).
- So we write: **$x - 2 = 4$**
- It is really that simple.
- The letter (in this case an x) just means "we don't know this yet". We call it the **unknown** or the **variable**.
- When we solve it we write: **$x = 6$**

Why use a letter?

- It is easier to write "x" than drawing empty boxes
(and easier to say "x" than "the empty box").
- If there are several empty boxes (**unknowns**) we can use a different letter for each one.
- It doesn't have to be x, it could be y or w ... or any letter or symbol we like.

How to solve

- Algebra is just like a puzzle where we start with something like:

$x - 2 = 4$ and so something minus 2 equals 4.

Therefore x must be 6 .

- $6 - 2 = 4$

Task - Can you solve these algebra questions?

1. $x + 14 = 22$ $x =$

2. $74 - y = 32$ $y =$

3. $99 \div g = 9$ $g =$

4. $5d = 30$ $d =$

5. $54 + c = 67$ $c =$

6. $88 - y = 30$ $y =$

7. $25 \div x = 5$ $x =$

8. $7f = 56$ $f =$

Tip – if a number is attached to a letter with no symbol... it means multiply. For example $6a =$ means $6 \times a =$.

Extension:

$5x + 20 = 30$ $x =$

$4y - 10 = 22$ $y =$

$7j + 10 = 2j + 20$ $j =$

Task - answers

1. $X + 14 = 22$ $x = 8$

2. $74 - y = 32$ $y = 42$

3. $99 \div g = 9$ $g = 11$

4. $5d = 30$ $d = 6$

5. $54 + c = 67$ $c = 13$

6. $88 - y = 30$ $y = 58$

7. $25 \div x = 5$ $x = 5$

8. $7f = 56$ $f = 8$

Extension:

$$5x + 20 = 30 \quad x = 2$$

$$4y - 10 = 22 \quad y = 8$$

$$7j + 10 = 2j + 20 \quad j = 2$$