

24.02.21 Fluent in Five

1) 90% of 194 =

2) 99% of 485 =

3) 17% of 703 =

4) $4997 \div 19 =$

5) $6214 \times 74 =$

6) $84 + 27.41 =$

1) 10% of 189 =

2) 5% of 860 =

3) 45% of 150 =

4) $7458 \times 3 =$

5) $7595 \div 5 =$

6) $84.1 + 1.67 =$

WALT understand and interpret formulae

<https://vimeo.com/500489558>

What is formulae?

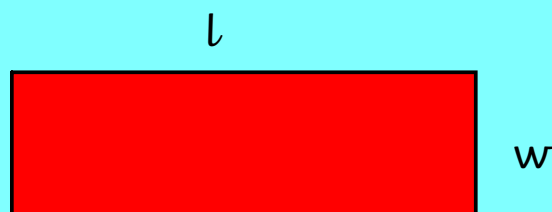
A formulae is a rule or relationship that uses letters to represent amounts which can be changed.

For example

Number of spiders (s)	1	2	3	4	10	50
Number of legs (l)						

How would we write this as a formulae?

We can use formulae to work out the area and perimeter of shapes.

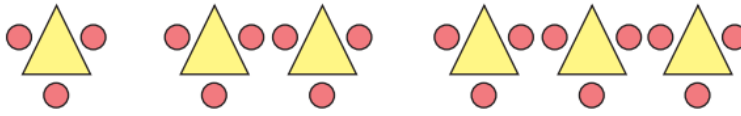


What formulae would we use to find the perimeter?

What formulae would we use to find the area?

Let's complete this diagram together.

Scott builds a pattern using triangles and circles.



a) Draw the next diagram in the pattern.

b) Scott records the number of triangles and circles in a table.

Complete the table.

Number of triangles	1	2	3	4	5
Number of circles	3				

What about this one?

Complete the table.

Number of weeks	1	2	3	5	10
Number of days	7				

Complete the formula to show the relationship between days (d) and weeks (w).

$$d = \boxed{} w$$

How many days are there in 32 weeks?

Varied Fluency

Which of the following is a formula?

$$P = 2l + 2w$$

$$3d + 5$$

$$20 = 3x - 2$$

Explain why the other two are not formulae.

Eva uses the formula $P = 2l + 2w$ to find the perimeter of rectangles.

Use this formula to find the perimeter of rectangles with the following lengths and widths.

- $l = 15, w = 4$
- $l = \frac{1}{4}, w = \frac{3}{8}$
- $l = w = 5.1$

This is the formula to work out the cost of a taxi.

$$C = 1.50 + 0.3m$$

C = the cost of the journey in £

m = number of miles travelled.

Work out the cost of a 12-mile taxi journey

Jack and Dora are using the following formula to work out what they should charge for four hours of cleaning.

$$\text{Cost in pounds} = 20 + 10 \times \text{number of hours}$$

Jack thinks they should charge £60

Dora thinks they should charge £120

Who do you agree with?

Why?

The rule for making scones is use 4 times as much flour (f) as butter (b).

Which is the correct formula to represent this?

(A)

$$f = \frac{b}{4}$$

(B)

$$f = 4b$$

(C)

$$f = b + 4$$

(D)

$$4f = b$$

Explain why the others are incorrect.