23.02.21 Fluent in five

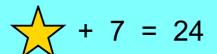
- 1) 30% of 140 =
- 2) 55% of 1032 =
- 3) 14% of 558 =
- 4) $2522 \div 13 =$
- 5) 4819 x 74 =
- 6) 14.67 4 =
- 1) 10% of 690 =
- 2) 70% of 180 =
- 3) 15% of 150 =
- 4) $769 \times 5 =$
- 5) 8793 ÷ 3 =
- 6) 12.63 9.56 =

WALT understand substitution in algebra

https://vimeo.com/500489180

Substitution, in algebra, means replacing one thing with another such as shapes or letters.

For example



What are the missing values?

$$2a + 4 = 44$$

How many different ways can you find to make 30?

It is not always shapes. Sometimes it is letters.

$$\chi = 10$$

$$x + 4 =$$

$$3x =$$

$$\frac{x}{2}$$
 =

$$2x + 1 =$$

Let's try these together

If
$$t = 5$$
 and $g = 6$

$$g - t = \boxed{ \qquad 3t + 4g + 6g + 7t = \boxed{ }}$$

$$\frac{(4t+5g)}{10} = \boxed{\qquad} 4(g-t) = \boxed{\qquad}$$

$$m = 7$$
 $n = 5$

Write >, < or = to compare the expressions.

- a) 2m () 10
- **b)** n-1 (5
- c) 2n + m 2m + n
- d) 7n $\left(\right)$ 5m

If
$$m = \frac{1}{4}$$
 and $n = 0.2$

work out the value of m + 3n





If a = 7 and b = 5 what is the value of:

$$a + b + b$$

What is the same and what is different about this question?

Substitute the following to work out the values of the expressions.

$$w = 3$$
 $x = 5$ $y = 2.5$

- w + 10
- w + x
- y w
- Substitute the following to work out the values of the expressions.

$$w = 10$$
 $x = \frac{1}{4}$ $y = 2.5$

- 3*y*
- 12 + 8.8w
- wx
- wy + 4x

Here are two formulae.

$$p = 2a + 5$$

$$c = 10 - p$$

Find the value of c when a = 10

$$x = 2c + 6$$

Whitney says,

x = 12 because cmust be equal to 3 because it's the 3rd letter in the alphabet



Is Whitney correct?

Amir says,

When
$$c = 5$$
, $x = 31$

Amir is wrong.

Explain why.

What would the correct value of x be?

If I know... then I know...

$$6e + 4 = f$$

When
$$e = 8$$
, $f = 52$

When
$$e = \int f = 58$$