

Algebra

Q4

a)

$$w - 3 = 10$$

$$w = 10 + 3$$

$$w = 13$$

b)

$$3p + 5 = 11$$

$$3p = 11 - 5$$

$$3p = 6$$

$$3 \times p = 6$$

times will change to divide

$$p = 6 \div 3$$

$$p = 2$$

c)

$$\frac{x}{10} + 5 = 12$$

$$\frac{x}{10} = 12 - 5$$

$$\frac{x}{10} = 7$$

divide changes to times

$$x = 7 \times 10$$

$$x = 70$$

d)

$$4p - 7 = 2(p + 3)$$

Solve bracket first

$$4p - 7 = 2xp + 2 \times 3$$

$$4p - 7 = 2p + 6$$

$$4p = 2p + 6 + 7$$

$$4p = 2p + 13$$

$$4p - 2p = 13$$

$$2p = 13$$

$$p = 13 \div 2$$

$$p = \frac{13}{2}$$

e) $(x+9)(x-2) = 0$

This means either

$$(x+9) = 0 \text{ or } (x-2) = 0$$

So,

$$\text{if } x+9 = 0$$

$$x = -9$$

$$\text{if } x-2 = 0$$

$$x = 2$$

There are two solutions

$x = -9$ or 2 (This is how you write the answer)

f) $x^2 + 11x + 30 = 0$

Find two numbers that add to give you 11 and the

same numbers multiply to give

you 30

For this question those numbers are 5 and 6 as $5+6 = 11$ and $5 \times 6 = 30$

So, you write your answer in the form of

$$(x+5)(x+6) = 0$$

Solve like the

question e from here onwards.