

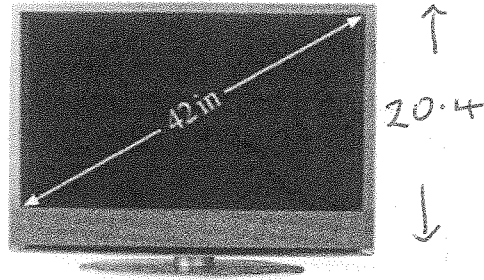
M4 = 13 days to go!

14 The size of a television is given as the length of the diagonal of the screen.

This television has a size of 42 inches.

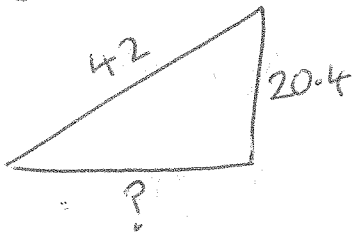
The height of the screen is 20.4 inches.

What is the width of the screen?



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Pythagoras' I think!



$$42^2 - 20.4^2$$

$$1764 - 416.16$$

$$1347.84$$

$$\sqrt{1347.84}$$

$$36.7$$

Answer 36.7 inches [3]

Always check
it makes sense!

25 The population of a town in 2014 was 80058

This was a 65% increase on its population in 1994

What was the population in 1994?

Reverse Percentage

$$\text{original} + 65\% = 80058$$

$$165\% = 80058$$

$$1\% = 4850.2$$

Answer 48520 [3]

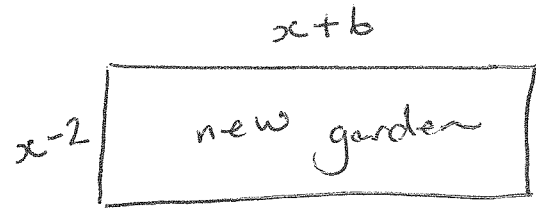
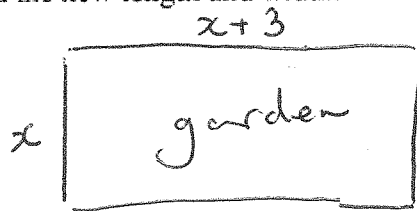
$$100\% = 48520$$

13 A rectangular garden has a length which is 3 metres longer than its width.

Its length is extended by adding 3 metres. The width is reduced by 2 metres.

The area of the newly made garden is exactly the same as the area of the original garden.

Find the new length and width.



same area

$$x(x+3)$$

$$x^2 + 3x$$

$$x^2 + 3x = x^2 + 4x - 12$$

$$12 = x$$

$$(x-2)(x+b)$$

$$x^2 - 2x + bx - 2$$

$$\text{New length} = \underline{18} \text{ m}$$

$$\text{New width} = \underline{10} \text{ m [4]}$$

New garden

$$10 \text{ and } 18 \text{ area} = 180$$

old garden

$$12 \times 15 = 180$$

so it checks out correctly!