



A train leaves a train station every 12 minutes.

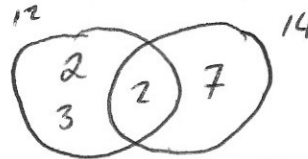
$$2 \times 2 \times 3$$

A bus leaves a bus station every 14 minutes.

$$2 \times 7$$

At 11am a train and a bus both leave their stations.

When will both next leave their stations at the same time?



$$3 \times 2 \times 2 \times 7 = 84$$

12:24pm

The area of a circle is 20cm^2
Work out the circumference.

$$A = \pi r^2$$

$$20 \div \pi = 6.366\dots$$

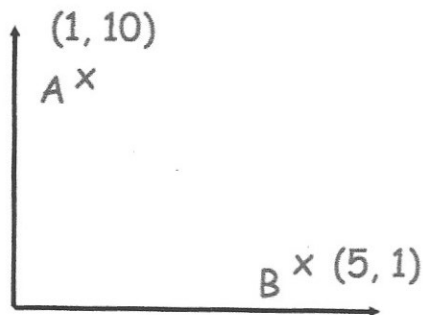
$$\sqrt{6.366\dots} = 2.523\dots$$

$$r = 2.523\dots$$

$$C = \pi \times d$$

$$= \pi \times 5.046265\dots$$

$$C = 15.8533\text{cm}$$



Find the midpoint of AB

$$1 + 5 = 6$$

$$6 \div 2 = 3$$

$$10 + 1 = 11$$

$$11 \div 2 = 5.5$$

(3, 5.5)

Expand and simplify

$$(x + 3)^2 + (x - 3)^2$$

$$x^2 + 3x + 3x + 9$$

$$x^2 + 6x + 9$$

$$x^2 - 3x - 3x + 9$$

$$x^2 - 6x + 9$$

$$x^2 + 6x + 9 + (x^2 - 6x + 9)$$

$$2x^2 + 18$$

Solve

$$x^2 + 7x - 8 = 0$$

$$(x + 8)(x - 1) = 0$$

$$x = -8 \text{ or } x = 1$$