

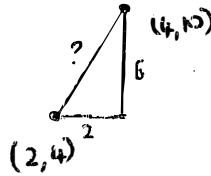
16th January



Corbettmaths

Calculate the distance between the coordinates (4, 10) and (2, 4).

Give your answer correct to 1 decimal place.



$$\begin{aligned} 2^2 + 6^2 &= ?^2 \\ 40 &= ?^2 \\ \sqrt{40} &= ? \end{aligned}$$

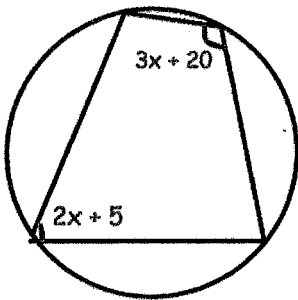
6.3

Find the coordinates where the graphs $y = x + 3$ and $y = 3x - 9$ meet.

$$\begin{aligned} x + 3 &= 3x - 9 \\ 12 &= 2x \\ \textcircled{6} &= x \end{aligned}$$

$$\begin{aligned} y &= x + 3 \\ y &= 6 + 3 = 9 \end{aligned}$$

(6, 9)



Find x.

$$\begin{aligned} 2x + 5 + 3x + 20 &= 180 \\ 5x + 25 &= 180 \\ 5x &= 155 \\ \underline{\underline{x = 31}} \end{aligned}$$

Two containers are mathematically similar.

The height of container A is 5cm.
The height of container B is 12.5cm

The volume of A is 240cm^3

What is the volume of B?

$$\text{Scale Factor} = 2.5 \text{ (linear)}$$

$$2.5^3 = 15.625$$

$$240 \times 15.625 = 3750\text{cm}^3$$

The number of ice creams sold increases by 40% in August compared to July.
The number of ice creams sold in September is the same as the number sold in July.
Work out the percentage decrease in sales for September compared to August.

$$\frac{0.4}{1.4} \times 100 = 28.571\dots$$