

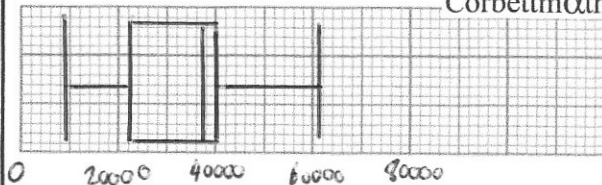
1st July

Higher 5-a-day

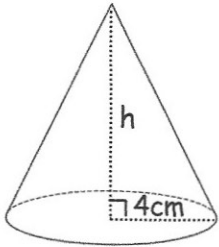


Corbettmaths

A company employs 200 people.
 25% of the employees earn under £22,000. LQ
 50% of the employees earn over £37,000. UQ
 The interquartile range of the earnings is £18,000. $UQ = £40000$
 The person who earns the most is paid £61,000. $highest = £9000$
 The range of the earnings is £52,000.



Draw a box plot to show this information



$$V = \frac{1}{3} A h$$

$$V = \frac{1}{3} \pi r^2 h$$

$$200 = \frac{1}{3} \pi r^2 h$$

$$200 = \frac{1}{3} \pi \times 16 \times h$$

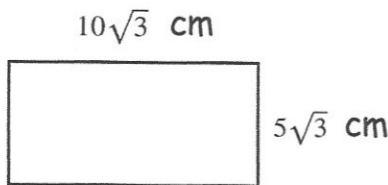
The volume of the cone is 200cm^3

The radius of the base of the cone is 4cm.

Find the height of the cone.

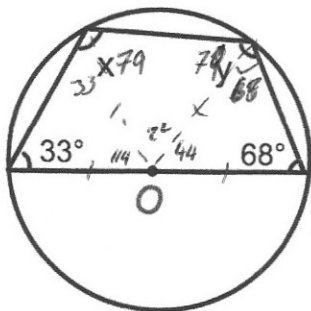
$$h = 11.937\text{cm}$$

Find the area of the rectangle



$$50 \times \sqrt{9}$$

$$50 \times 3 = 150\text{cm}^2$$



Find x and y

$$180 - 22 = 158$$

$$158 \div 2 = 79$$

$$x = 33 + 79 = 112^\circ$$

$$y = 79 + 68 = 147^\circ$$

Bag A contains $5x$ coins. $8x$ total
 Bag B contains $3x$ coins.
 8 coins are taken from Bag B and put into Bag A
 The ratio of coins in Bag A to Bag B is now 11:5
 Work out the total number of coins.

$$11(3x - 8) = 5(5x + 8)$$

$$33x - 88 = 25x + 40$$

$$8x = 128$$

$$x = 16$$

$$8 \times 16 = 128$$