

2nd October

Higher 5-a-day



Corbettmaths

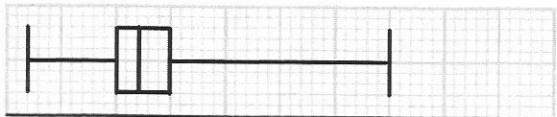
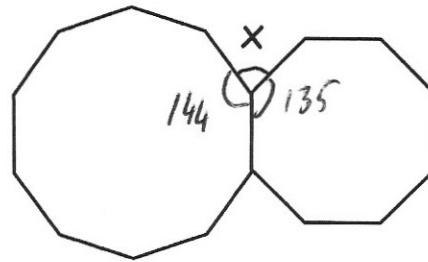
Shown is a regular octagon and a regular decagon.

Find x

$$1440 \div 10 = 144^\circ$$

$$1080 \div 8 = 135^\circ$$

$$360 - 144 - 135 = 81^\circ$$



0 1 2 3 4 5
Distance, km

Find the interquartile range

$$1.5 - 1 = 0.5 \text{ km}$$

5 adult tickets and 14 child tickets cost £99

$$5x + 14y = 99$$

An adult ticket costs £1.75 more than a child ticket.

$$x - y = 1.75$$

Find the cost of an adult ticket and find the cost of a child ticket.

$$£6.50 \text{ and } £4.75$$

$$\begin{array}{r} 5x + 14y = 99 \\ 5x - 5y = 8.75 \\ \hline 19y = 90.25 \\ y = 4.75 \\ x = 6.50 \end{array}$$

Solve by factorising

$$2x^2 - 7x - 9 = 0$$

$$(2x - 9)(x + 1) = 0$$

$$x = 4.5 \text{ or } x = -1$$

$$v = u + at$$

Given $u = 2.4$ correct to 2 significant figures, $a = 12$ correct to 2 significant figures and $t = 5$ correct to 1 significant figure.

Calculate the lower bound for v .

$$2.35 + 11.5 \times 4.5 = 54.1$$