

16th August



Corbettmaths

A car travelled for 100 minutes, to the nearest 5 minutes. $97.5 / 102.5$
 It travelled for a total distance of 100 km, to the nearest 10km $95 / 105$

$$\text{Max S} = \frac{\text{max } d}{\text{min } t}$$

$$= \frac{105000 \text{ metres}}{5950 \text{ seconds}}$$

Work out the greatest possible average speed, in m/s

$$17.9487 \text{ m/s}$$

Height (h cm)	Frequency
$110 < h \leq 120$	8
$120 < h \leq 130$	16
$130 < h \leq 140$	25
$140 < h \leq 150$	32
$150 < h \leq 160$	19

75th value

Calculate an estimate of the upper quartile

$$140 + \frac{26}{32} \times 10$$

$$148.125 \text{ cm}$$

Solve $2x^2 - x - 6 < 0$

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



$$-1.5 < x < 2$$

Circle A has equation $x^2 + y^2 = 9$ is translated by the vector $\begin{pmatrix} 0 \\ 2 \end{pmatrix}$

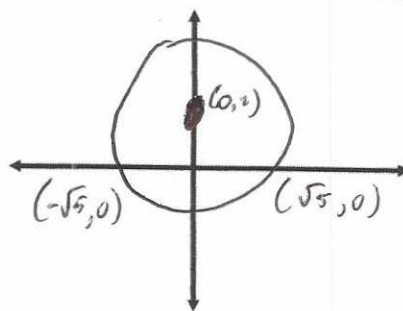
$\begin{pmatrix} 0 \\ 2 \end{pmatrix}$ to give Circle B

Sketch Circle B

Label the centre of B and the points of intersection with the x-axis

$$x^2 + (y-2)^2 = 9$$

$$y=0$$



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

$$x^2 + 4 = 9$$

$$x^2 = 5 \quad (\sqrt{5}, 0)$$

$$x = \pm \sqrt{5}$$