

28th September



Corbettm0ths

Expand and simplify $(\sqrt{7} - \sqrt{3})^2$

$$(\sqrt{7} - \sqrt{3})(\sqrt{7} - \sqrt{3})$$

$$7 - \sqrt{21} - \sqrt{21} + 3$$

$$10 - 2\sqrt{21}$$

Hours, h	Frequency
$0 < h \leq 5$	27
$5 < h \leq 10$	44
$10 < h \leq 15$	21
$15 < h \leq 20$	8

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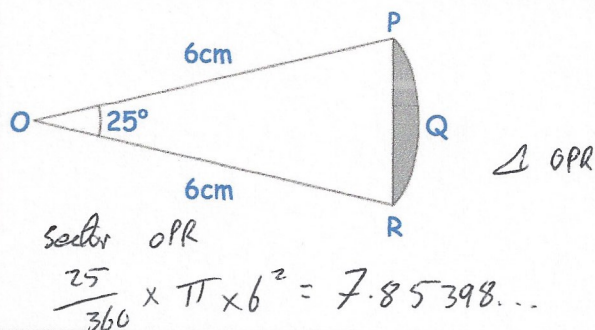
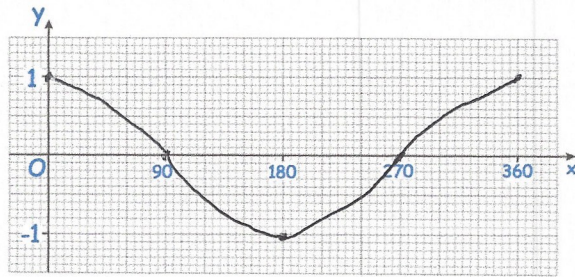
$$\frac{100}{100}$$

Find the median time spent revising

$$5 + \frac{23}{44} \times 5$$

$$7.6136$$

Sketch the graph of $y = \cos x$ for $0 \leq x \leq 360$.



PQR is an arc of a circle centre O with radius 6cm.
PR is a chord of the circle.

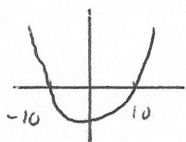
Calculate the area of the shaded region.

$$\frac{1}{2} \times 6 \times 6 \times \sin 25 = 7.607128711$$

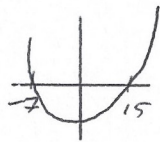
$$7.853\dots - 7.60712\dots$$

$$= 0.24685 \text{ cm}^2$$

Find the set of values of x for which $x^2 - 100 > 0$ and $x^2 + 8x - 105 > 0$



$$x < -10 \text{ or } x > 10$$



$$x < -7 \text{ or } x > 15$$

$$x < -10 \text{ or } x > 15$$