

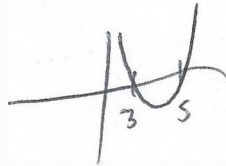
24th August



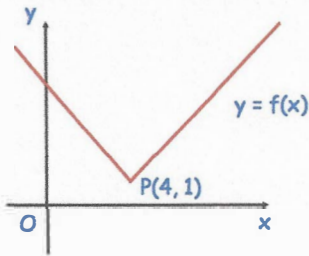
Corbettmaths

Solve $x^2 - 8x + 15 \leq 0$

$$(x-5)(x-3) \leq 0$$



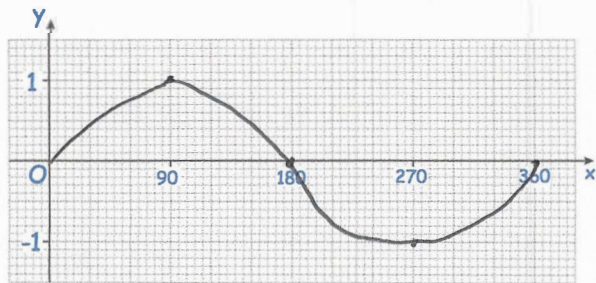
$$3 \leq x \leq 5$$



What are the coordinates of the new position of P when the graph $y = f(x)$ is transformed to the graph of $y = -f(x)$?

$$(4, -1)$$

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



The cost of two TVs are in the ratio $x:y$

When both prices are increased by £40, the ratio is 13:20

When both prices are decreased by £100, the ratio is 8:15

$$\frac{y+40}{x+40} = \frac{13}{20}$$

$$13y + 520 = 20x + 800 \quad *$$

$$\frac{y-100}{x-100} = \frac{8}{15} \quad 8y - 800 = 15x - 1500$$

$$8y + 700 = 15x$$

$$\frac{8}{15}y + \frac{140}{3} = x \quad \text{sub into } *$$

$$13y + 520 = 20\left(\frac{8}{15}y + \frac{140}{3}\right) + 800$$

$$13y = 20\left(\frac{8}{15}y + \frac{140}{3}\right) + 280$$

$$13y = 10\frac{2}{3}y + \frac{2800}{3} + 280$$

$$2\frac{1}{3}y = 1213\frac{1}{3}$$

$$y = 520$$

$$x = 324$$