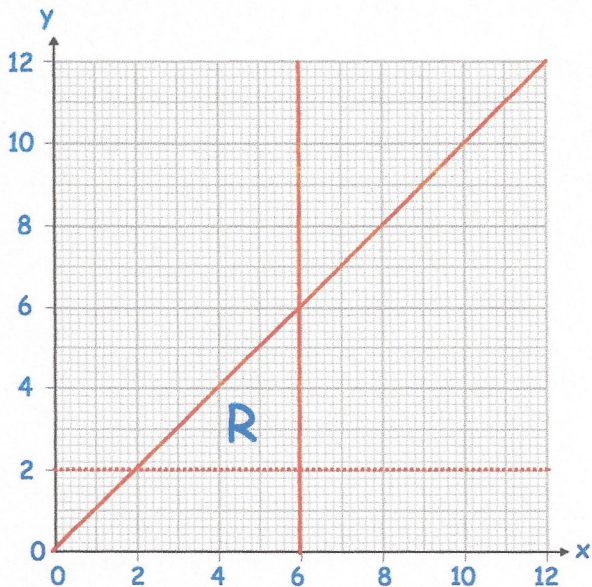


24th June



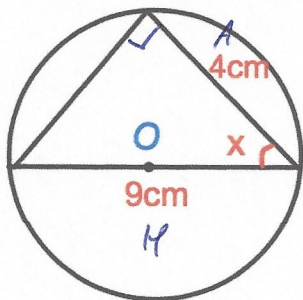
Corbettmaths



The region labelled R satisfies three inequalities.

State the three inequalities

$$\begin{aligned}x &\leq 6 \\y &> 2 \\y &\leq x\end{aligned}$$



Find x

$$\begin{aligned}\cos x &= \frac{4}{9} \\x &= \cos^{-1}\left(\frac{4}{9}\right) \\x &= 63.61^\circ\end{aligned}$$

Find an equation of the line perpendicular to $y = 2x - 1$ and passing through $(2, 4)$

$$\begin{aligned}m &= -\frac{1}{2} \\y &= -\frac{1}{2}x + c\end{aligned}$$

$$\begin{aligned}4 &= -1 + c \\c &= 5\end{aligned}$$

$$y = -\frac{1}{2}x + 5$$

Factorise $2x^2 + x - 6$

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

Factorise $a^4 - b^4$

$$\begin{aligned}(a^2 - b^2)(a^2 + b^2) \\(a + b)(a - b)(a^2 + b^2)\end{aligned}$$