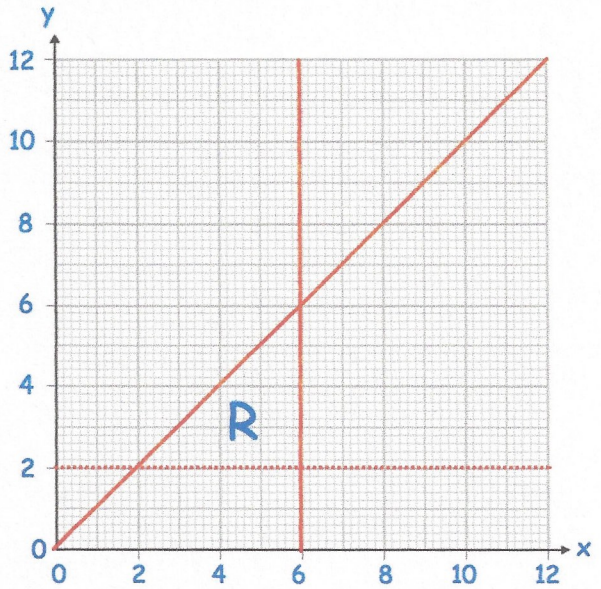
24th June

Corbettmaths



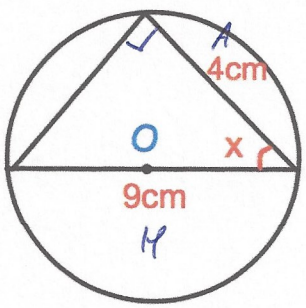
The region labelled R satisfies three inequalities.

State the three inequalities

$x \leq 6$

$y > 2$

$y \leq x$



Find x

$\cos x = \frac{4}{9}$

$x = \cos^{-1}\left(\frac{4}{9}\right)$

$x = 63.61°$

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

$m = -\frac{1}{2}$

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

$4 = -1 + c$

$c = 5$

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

Factorise $2x^2 + x - 6$

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

Factorise $a^4 - b^4$

$(a^2 - b^2)(a^2 + b^2)$

$(a + b)(a - b)(a^2 + b^2)$