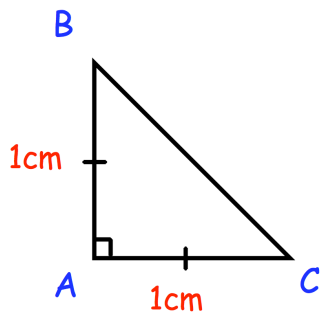


21st June



Corbettmaths



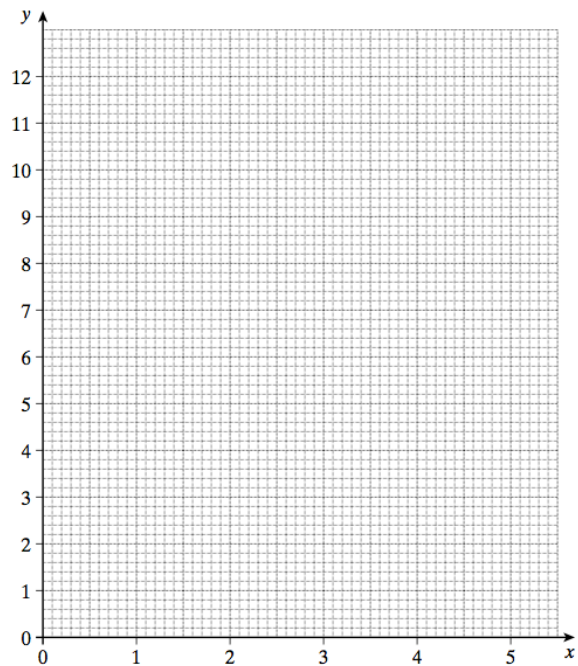
Show that $\cos 45^\circ = \frac{\sqrt{2}}{2}$

A function $f(x)$ is defined as

$$f(x) = 12 - 4x \quad 0 \leq x < 3$$

$$= (x - 3)^3 \quad 3 \leq x \leq 5$$

Draw the graph of $y = f(x)$ on the axes.



Find the coordinates where the line $x + y = 3$ and the curve $x^2 + 6y = 30$ intersect.

Give your answers in surd form.