

27th July

Higher Plus 5-a-day



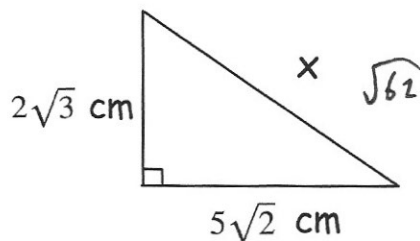
Corbettmaths

The square of w is 6Write down the value of w^3

$$w^2 = 6$$

$$w = \pm\sqrt{6}$$

$$w^3 = 6\sqrt{6} \text{ or } -6\sqrt{6}$$

Find x

$$x^2 = (2\sqrt{3})^2 + (5\sqrt{2})^2$$

$$x^2 = 62$$

$$x = \sqrt{62} \text{ cm}$$

Scott has drawn $y = x^2 - 4x - 8$ and $y = 3x + 6$

Find the quadratic equation whose solutions are the x -coordinates of the points of intersection of $y = 3x + 6$ and $y = x^2 - 4x - 8$

$$x^2 - 4x - 8 = 3x + 6$$

$$x^2 - 7x - 14 = 0$$

Solve

$$\frac{11}{(x-1)(x+4)} + \frac{5}{x-1} = 1$$

$$\frac{11}{(x-1)(x+4)} + \frac{5(x+4)}{(x-1)(x+4)} = 1$$

$$5x+31 = (x-1)(x+4)$$

$$5x+31 = x^2+3x-4$$

$$0 = x^2 - 2x - 27$$

$$(x-7)(x+5) = 0$$

$$x = 7 \text{ or } x = -5$$

A triangle has side lengths of 9cm, 10cm and 5cm.

Find the size of the largest angle.

$$86.18^\circ$$

$$\cos A = \frac{5^2 + 9^2 - 10^2}{2 \times 5 \times 9}$$