

Solve  $x^2 = 51 + 14x$ 

$$x^2 - 14x - 51 = 0$$

$$(x - 17)(x + 3) = 0$$

$$x = -3 \text{ or } x = 17$$

A is directly proportional to the square root of B.

$$A \propto \sqrt{B}$$

When  $A = 50$ ,  $B = 4$ .

$$A = k\sqrt{B}$$

Find A in terms of B.

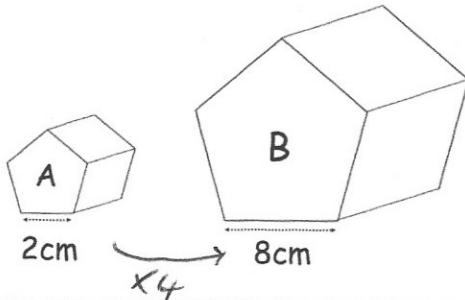
$$50 = k \times \sqrt{4}$$

$$50 = k \times 2$$

$$k = 25$$

$$A = 25\sqrt{B}$$

Prisms A and B are similar.

The volume of prism A is  $7\text{cm}^3$ 

Work out the volume of prism B.

$$7 \times 4^3 = 448\text{cm}^3$$

Write  $0.2\dot{8}$  as a fraction in its simplest form.

$$x = 0.2888\dots$$

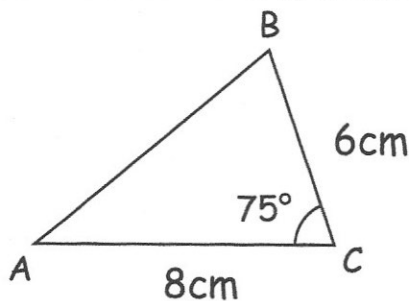
$$10x = 2.888\dots$$

$$100x = 28.88\dots$$

$$90x = 26$$

$$x = \frac{26}{90}$$

$$x = \frac{13}{45}$$



Work out the length of the missing side.

$$AB^2 = 6^2 + 8^2 - 2 \times 6 \times 8 \times \cos 75$$

$$AB^2 = 75.15\dots$$

$$AB = 8.669\text{ cm}$$