



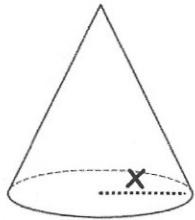
$$w = \frac{9x(a+c)}{cd} \quad cdw = 9ax + 9cx$$

Make c the subject.

$$cdw - 9cx = 9ax$$

$$c(dw - 9x) = 9ax$$

$$c = \frac{9ax}{dw - 9x}$$



11cm

$$V = \frac{1}{3} \pi x^2 \times 11$$

The volume of the cone  $612\text{cm}^3$   
Find the radius of the base of the cone.

$$\frac{1}{3} \pi x^2 \times 11 = 612$$

$$x^2 = 53.1288\dots$$

$$x = 7.289 \text{ cm}$$

Solve, giving your answers to one decimal place.

$$x^2 - x - 11 = 0$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$a = 1$$

$$b = -1$$

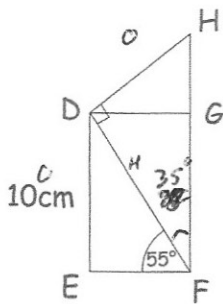
$$c = -11$$

$$x = \frac{1 \pm \sqrt{1 - (-44)}}{2}$$

$$x = 3.9$$

or

$$x = -2.9$$



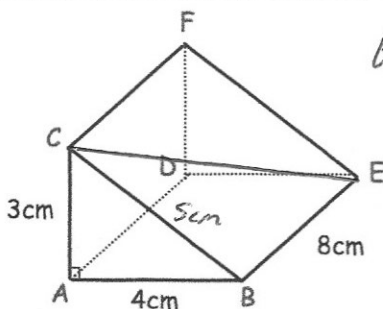
$$\sin 55^\circ = \frac{10}{DH}$$

$$DH = \frac{10}{\sin 55^\circ} = 12.207\dots$$

DE = 10cm  
Angle DFE =  $55^\circ$   
Find the length of DH

$$\tan(35^\circ) \times 12.207\dots$$

$$8.548 \text{ cm}$$



$$BC^2 = 3^2 + 4^2$$

$$= 9 + 16$$

$$BC^2 = 25$$

$$BC = 5 \text{ cm}$$

Shown below is a triangular prism.  
Triangle ABC is a right angled triangle.  
Find the length of CE.

$$CE^2 = 5^2 + 8^2$$

$$= 25 + 64$$

$$= 89$$

$$CE = \sqrt{89} = 9.43 \text{ cm}$$