

30th August

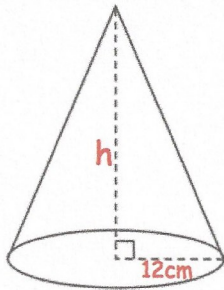


Corbettmaths

$$w = \frac{20(a + c)}{c}$$

Make c the subject.

$$\begin{aligned} cw &= 20a + 20c \\ cw - 20c &= 20a \\ c(w - 20) &= 20a \\ c &= \frac{20a}{w - 20} \end{aligned}$$



$$\begin{aligned} \frac{1}{3} \pi \times 12^2 \times h &= 500 \\ \pi \times 144 \times h &= 1500 \\ h &= 3.3157 \text{ cm} \end{aligned}$$

The volume of the cone 500cm³
Find h

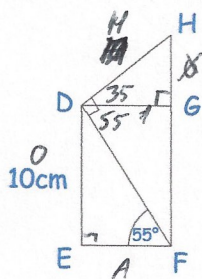
Solve, giving your answers to one decimal place.

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

$$\begin{aligned} a &= 1 & b &= -1 \\ c &= -11 \end{aligned}$$

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

$$\begin{aligned} x &= \frac{1 \pm \sqrt{1 - (4 \times 1 \times -11)}}{2} \\ &= \frac{1 \pm \sqrt{45}}{2} \\ x &= 3.9 \quad \text{or} \quad x = -2.9 \end{aligned}$$

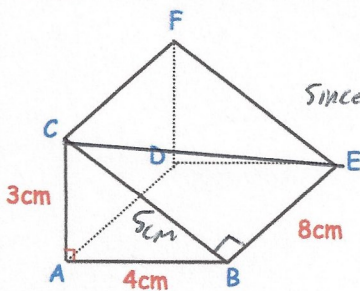


$$\begin{aligned} EF &= \frac{10}{\tan 55} \\ &= 7 \text{ cm} \\ DG &= 7 \text{ cm} \end{aligned}$$

rth A

DE = 10cm
Angle DFE = 55°
Find the length of DH

$$\begin{aligned} DH &= \frac{7}{\cos 35} \\ &= 8.545 \text{ cm} \end{aligned}$$



BC = 5cm
Since 3,4,5 triangle

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

$$\begin{aligned} CE^2 &= BC^2 + BE^2 \\ CE^2 &= 5^2 + 8^2 \\ CE^2 &= 89 \end{aligned}$$

$$CE = \sqrt{89} = 9.43398 \dots \text{ cm}$$