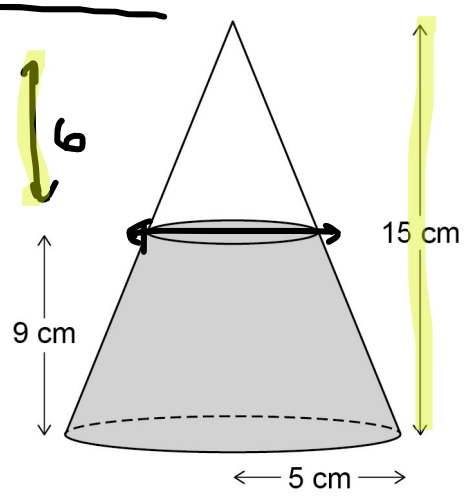
28 Volume of cone = $\frac{1}{3}\pi r^2 h$ where r is the radius and h is the perpendicular height.

A cone has a

horizontal base of radius 5 cm

height of 15 cm

The cone contains water to a depth of 9 cm



Work out the volume of the water, in cm^3

Give your answer in terms of π.

125 125 0

[4 marks]

$\frac{1}{3}\pi 25(15)$

$\frac{1}{3}\pi 375$

$\frac{1}{3}\pi 375 = \pi\frac{375}{3} = \pi 125$

$\pi 125$ $\div 3$ $\frac{15}{6} = \frac{5}{2} \rightarrow 2.5$ $\pi 125$ $\pi 6$

$5 \div 2.5 = \frac{10}{5} = 2$ $\frac{1}{3}\pi 24 \rightarrow \pi 8$

Answer $\pi 117$ cm^3