

11th February



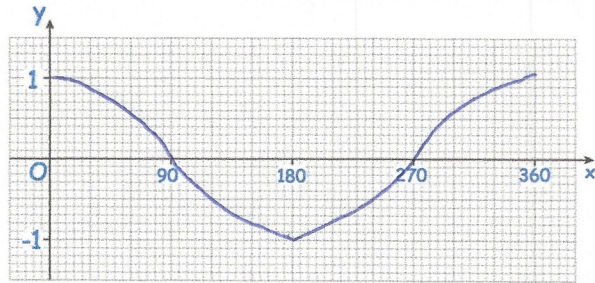
Corbettmaths

Evaluate

$$64^{-\frac{2}{3}}$$

$$\frac{1}{64^{\frac{2}{3}}} = \frac{1}{16}$$

Sketch the graph of  $y = \cos x$  for  $0 \leq x \leq 360$ .



Simplify

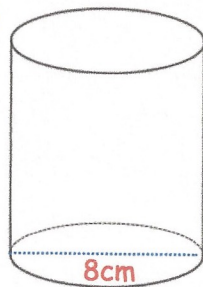
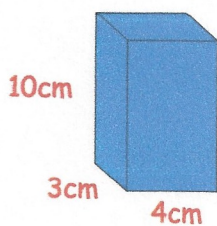
$$\sqrt{75} + \sqrt{48}$$

$$\sqrt{25} \times \sqrt{3} + \sqrt{16} \times \sqrt{3}$$

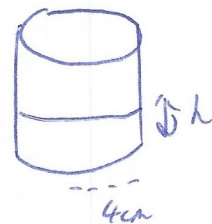
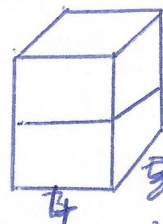
$$5\sqrt{3} + 4\sqrt{3}$$

$$9\sqrt{3}$$

$$\text{Total Volume} = 120 \text{ cm}^3$$



Work out h.



$$(4 \times 3 \times h) + (\pi \times 4^2 \times h) = 120$$

$$12h + 16\pi h = 120$$

$$h(12 + 16\pi) = 120$$

$$h = 1.927 \dots$$

The cuboid is full of liquid.  
Some of the liquid is poured into the cylinder.  
The height,  $h$ , of liquid in both containers is the same.