



Two solids are mathematically similar.  
The surface area of the smaller solid is  $42\pi \text{ cm}^2$   
The surface area of the larger solid is  $1512\pi \text{ cm}^2$

The height of the larger solid is 96cm.  
Work out the height of the smaller solid.

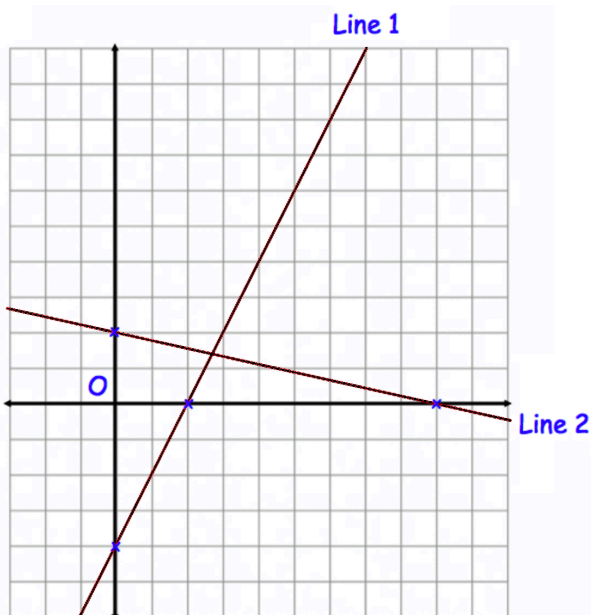
$$w = \frac{\sqrt[3]{y}}{r}$$

$y = 1800$  to 2 significant figures  
 $r = 7.1$  to 1 decimal place

By considering bounds, work out the value of  $w$  to a suitable degree of accuracy

Make  $x$  the subject of

$$y = \frac{x + 7}{x - 3}$$



Shown are two straight lines drawn on the grid.

Line 2 has equation  $y = -2x + 18$

Find the equation of Line 1

Are the two lines perpendicular?