



A cylinder has a height of 6cm and a radius of 8cm on its base.

The dimensions are doubled.

- What is the scale factor k ?
- Show that the outer surface area of the enlarged cylinder is given by $k^2 \times \text{Outer surface area of the original cylinder}$
- Show that the volume of the enlarged cylinder is given by $k^3 \times \text{Volume of the original cylinder}$