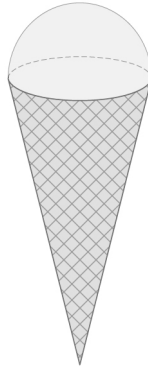


- 1 Outside a cafe there is a large plastic ice cream cornet.
The cornet is a hemisphere on top of a cone.



The cone and the hemisphere each have radius 24 cm
The cone has perpendicular height 117 cm

$$\text{Volume of a cone} = \frac{1}{3} \pi r^2 h$$

r is the radius

h is the perpendicular height

$$\text{Volume of a hemisphere} = \frac{2}{3} \pi r^3$$

r is the radius

- 1 (a) Work out the total volume of the cornet.

[4 marks]

Answer _____ cm^3

1 (b)

The actual cornets that the cafe sells are **similar** to the plastic one.

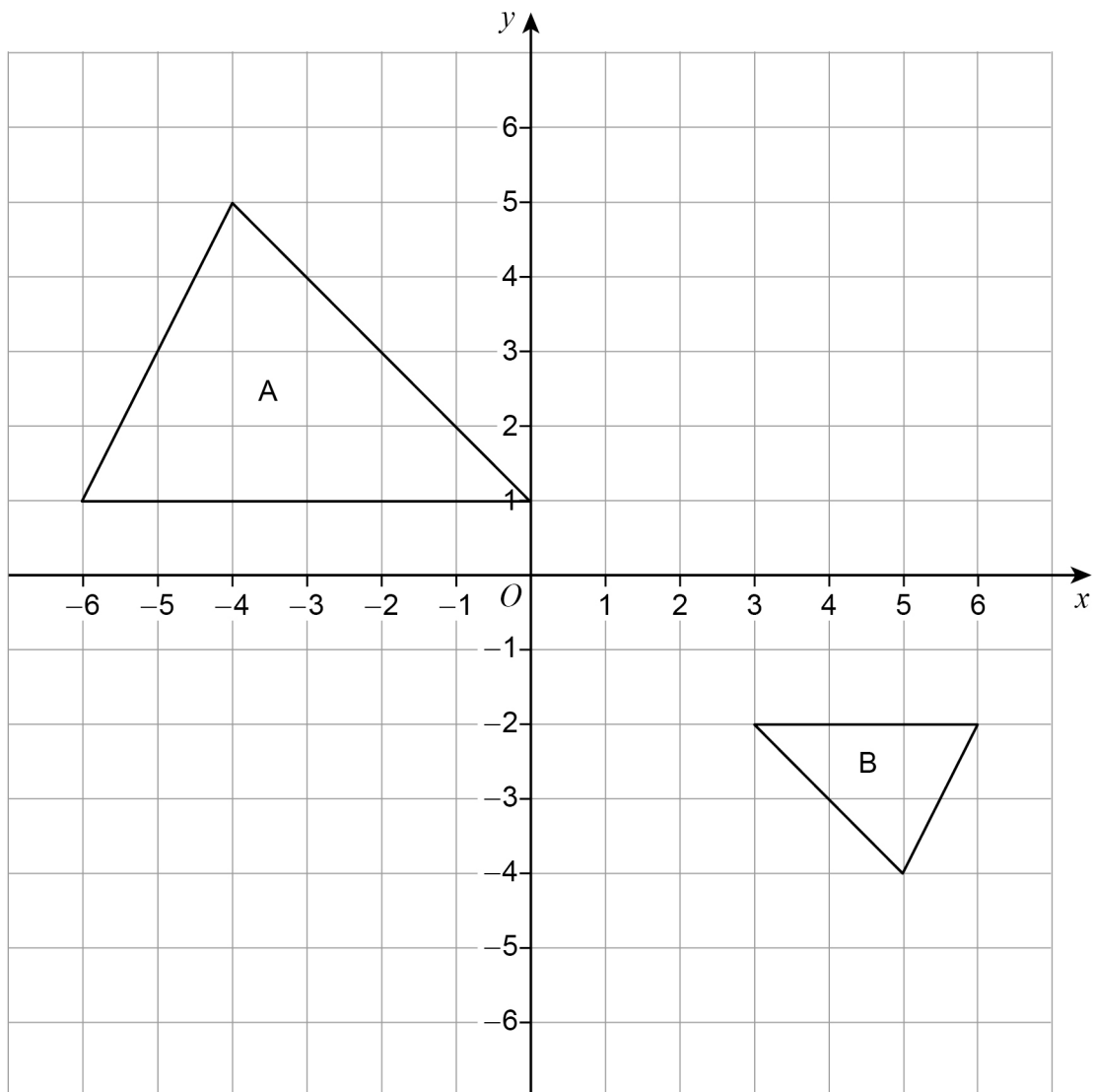
For the actual cornets, the cone and the hemisphere each have radius 2 cm

How many times greater is the volume of the plastic cornet than an actual cornet?

[3 marks]

Answer _____

- 2 Shape A is enlarged to shape B.



- 2 (a) Circle the scale factor of the enlargement.

[1 mark]

$$-\frac{1}{2}$$

$$-2$$

$$\frac{1}{2}$$

$$2$$