

# Measuring cup

**This task is about calculating volume.**

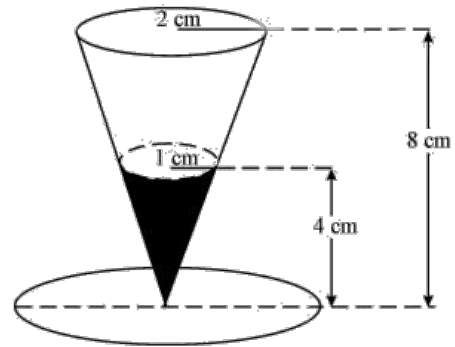
Use the information about the measuring cup to answer the questions below.

The height ( $h$ ) of the cup is 8 cm.

The radius ( $r$ ) of the top of the cup is 2 cm.

The volume of the cup is given by the formula:

$$V = \frac{1}{3}\pi r^2 h \text{ (Use } \pi = 3.14\text{)}$$



a) What volume of medicine will the cup contain if it is full?  cm<sup>3</sup>

b) What volume will be in the cup if the height of medicine is ...

i) 4 cm?  cm<sup>3</sup>

ii) 7 cm?  cm<sup>3</sup>

c) The cup had 6 cm of medicine in it.

Monica drank some medicine, but found the cup still had 2 cm of medicine left in it.

How much medicine did Monica drink?  cm<sup>3</sup>