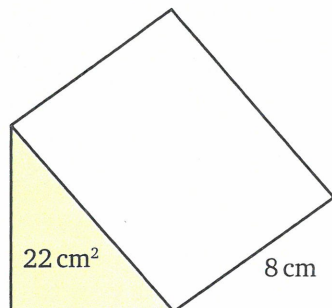


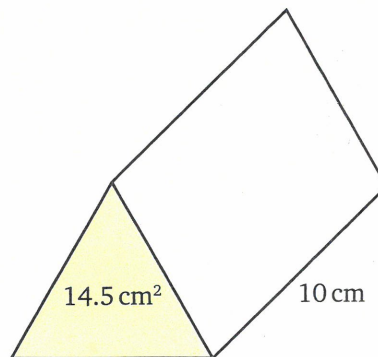
C

- 1 The area of the cross-section of each prism is given in these diagrams.  
Work out the volume of each prism.  
Remember to state the units of each answer.

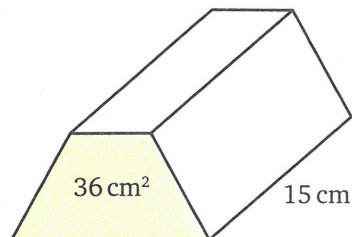
a



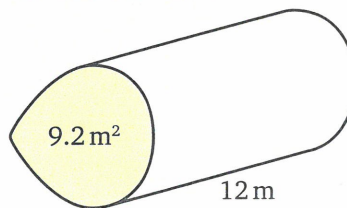
c



b

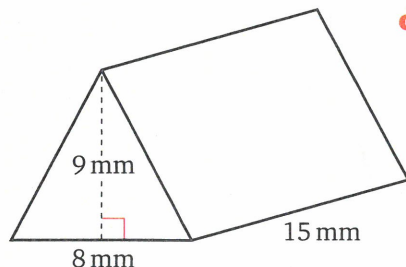


d

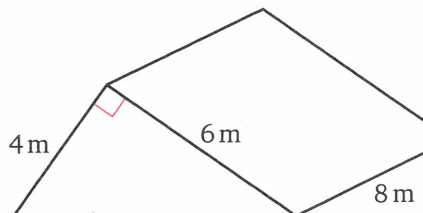


- 2 Work out the volume of each of these **triangular** prisms.

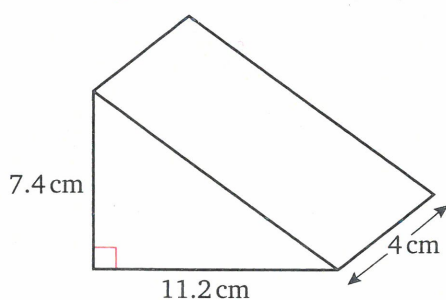
a



c

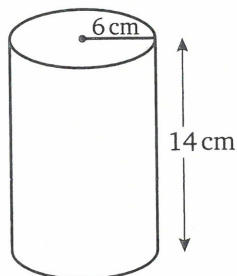


b

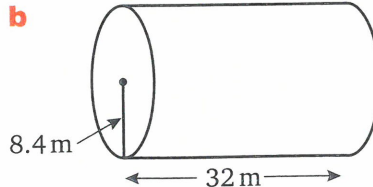


- 3 Work out the volume of each **cylinder**.

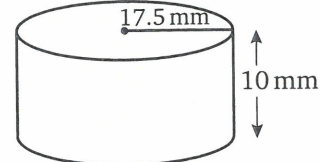
a



b



c



- 4 A prism has a volume of  $132 \text{ cm}^3$ . The area of the cross-section of the prism is  $33 \text{ cm}^2$ .  
Work out the height of the prism.

C

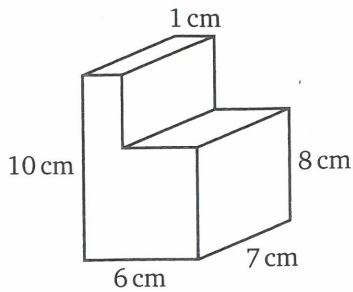
# Hint

Draw a sketch of the cross-section to help you.

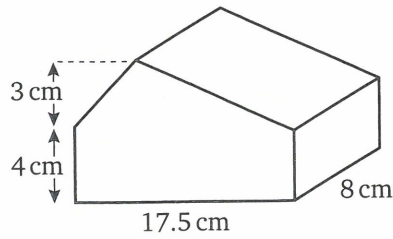
5 For each prism shown below, work out:

- i the area of the cross-section    ii the volume.

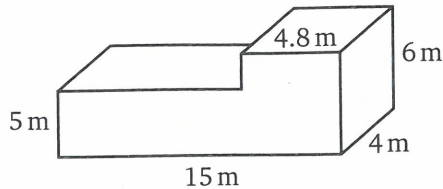
a



c



b



6

A cylinder of height 3.2 m has a volume of  $15.68 \text{ m}^3$ .

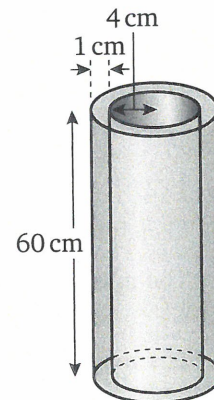
Work out the area of the base of the cylinder.

7

The diagram shows a plastic pipe of internal radius 4 cm and length 60 cm.

The plastic has a thickness of one centimetre.

Calculate the volume of plastic in the pipe.



Not drawn accurately



8

At a pre-school playgroup, each of the 36 children is given a beaker of milk. The beakers are cylinders of radius 3 cm and height 8 cm and are three-quarters full.

Each milk carton contains 2.2 litres of milk.

Susie says that three cartons will be enough for all the children.

Is she correct?

Show your working.

# Hint

$1000 \text{ cm}^3 = 1 \text{ litre}$



9

The volume of a prism is  $90 \text{ cm}^3$ .

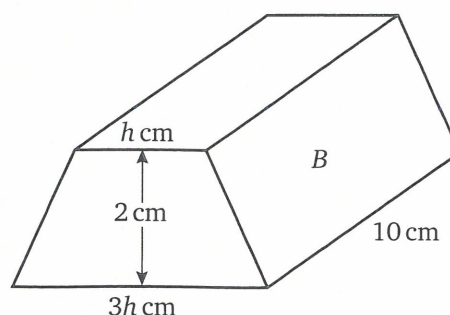
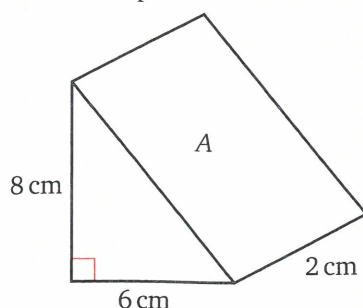
Find three different shapes of prism with this volume.

Give the dimensions of each one.



10

These two prisms have the same volume. Work out  $h$ .



Not drawn accurately