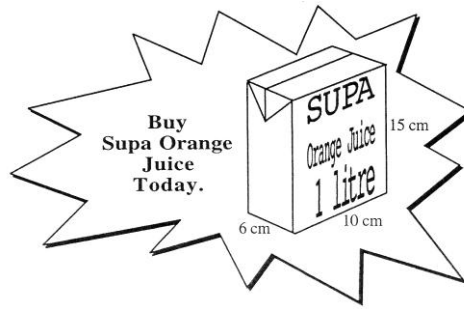


- Label Diagrams
- Does answer make sense!

Area & Volume Homework 1

- Presentation
- Units

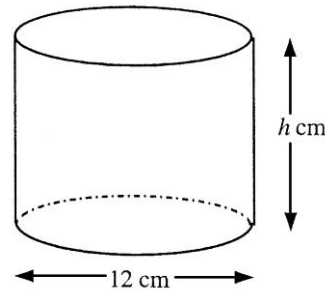
Q1. a) Explain what is wrong with this advert for a 1 litre carton of Orange Juice.



1 mark

b) The measurements 10 cm, 6 cm and 15 cm are correct.

All of the juice is poured into this cylindrical container with base diameter 12 cm and it is found to exactly half fill it.



Calculate the height of the container.

4 marks

Q2. A wooden toy box is prism-shaped as shown in figure 1.

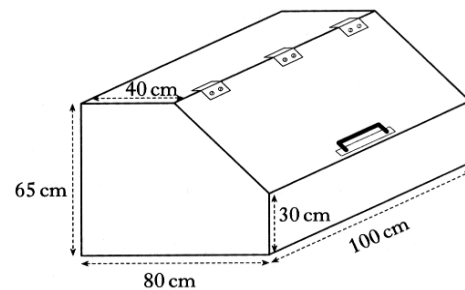


figure 1

The uniform cross-section of the box is as shown in figure 2.

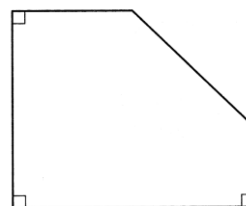


figure 2

Calculate the volume of the box in **cubic metres**.

4 marks

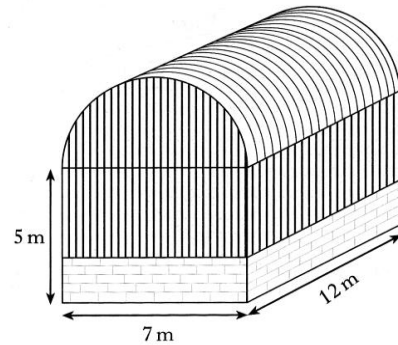
- Label Diagrams
- Does answer make sense!

Area & Volume Homework 1

- Presentation
- Units

Q3. A storage barn is prism shaped, as shown.

The cross-section of the storage barn consists of a rectangle measuring 7 metres by 5 metres and a semi-circle of radius 3.5 metres.



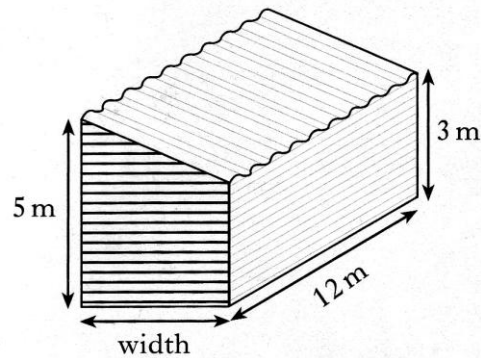
a) Find the volume of the storage barn.

Give your answers in cubic metres, correct to 2 significant figures.

4 marks

b) An extension to the barn is planned to increase the volume by 200 cubic metres.

The uniform cross-section of the extension consists of a rectangle and a right angled triangle.

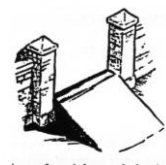
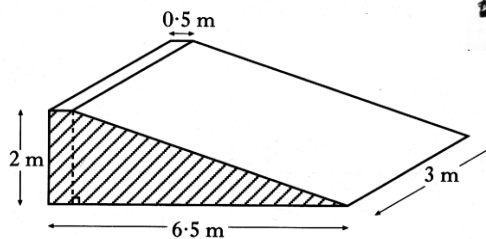


Find the width of the extension.

3 marks

Q4. A ramp is being made from concrete.

The uniform cross section of the ramp consists of a right angled triangle and a rectangle as shaded in the diagram.



Find the volume of concrete required to make the ramp.

2 marks

Total : 18 marks