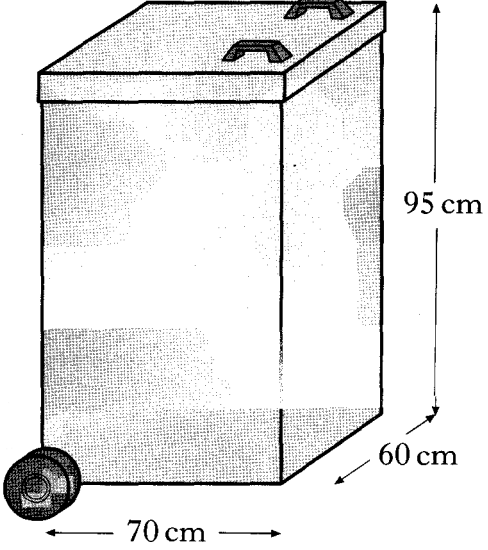
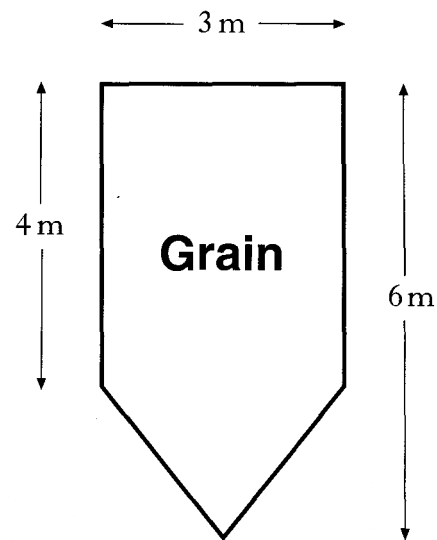


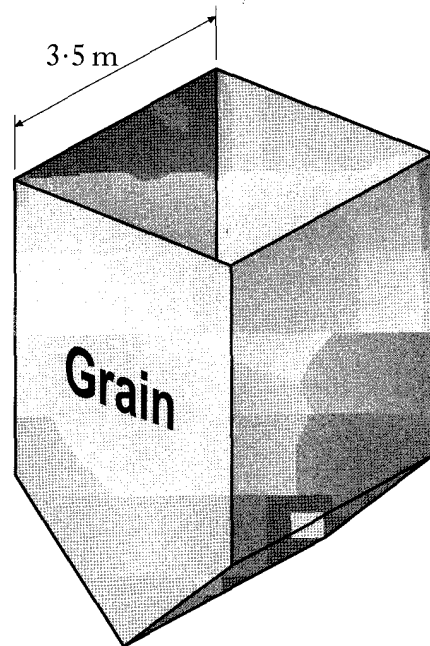
<p>2008 P2 Q13</p>	<p>A wheelie bin is in the shape of a cuboid.</p> <p>The dimensions of the bin are:</p> <ul style="list-style-type: none"><li>• length 70 centimetres</li><li>• breadth 60 centimetres</li><li>• height 95 centimetres.</li></ul>  <p>(a) Calculate the volume of the bin.</p> <p>(b) The council is considering a new design of wheelie bin. The new bin will have the same volume as the old one. The base of the new bin is to be a square of side 55 centimetres. Calculate the height of the new wheelie bin.</p>	<p>2</p> <p>3</p>
<p>Ans</p>	<p>(a) <math>399000\text{cm}^3</math>    (b) 131.9cm</p>	

The end face of a grain hopper is shown in the diagram.

(a) Calculate the area of the end face.



(b) The grain hopper is in the shape of a prism with a length of 3.5 metres. Find the volume of the hopper.

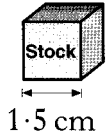
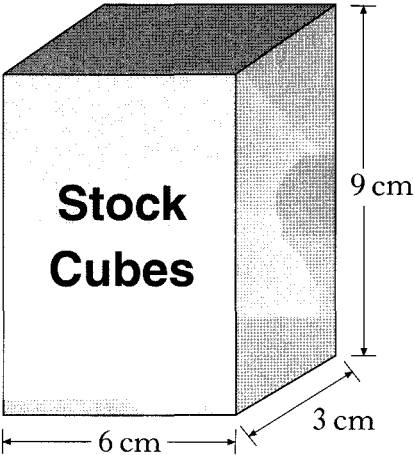
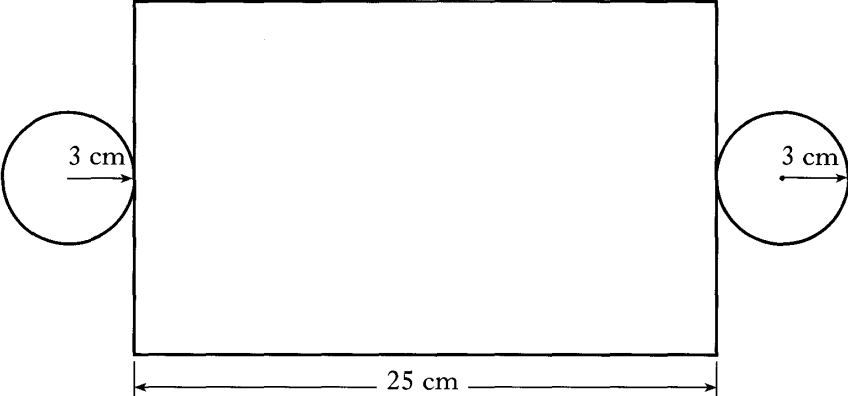


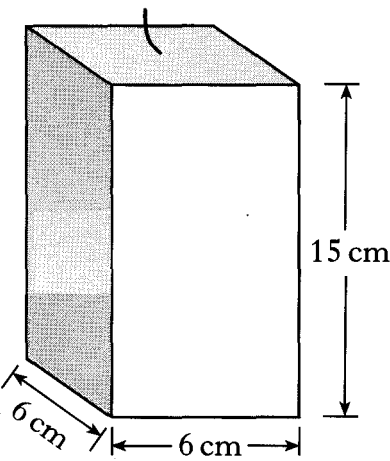
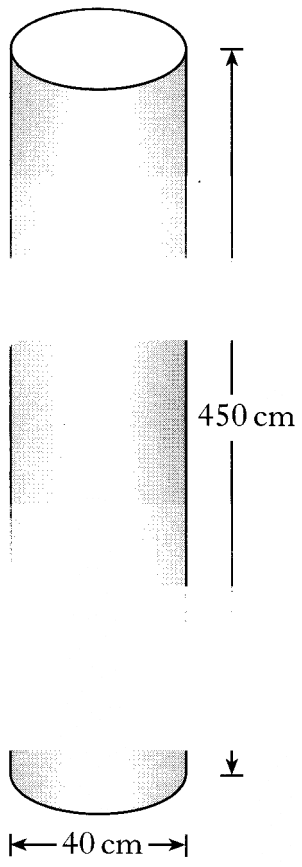
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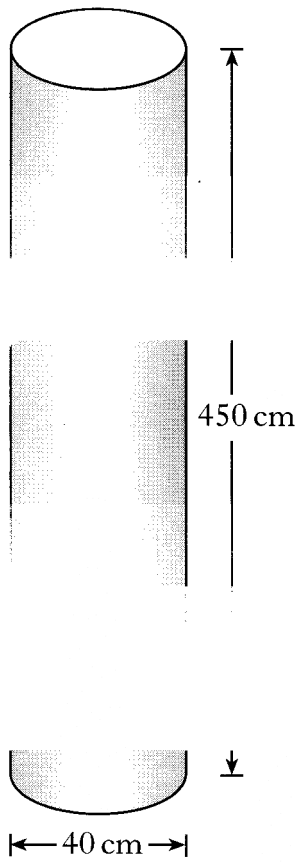
2007 P2 Q10

Ans (a)  $15\text{m}^2$  (b)  $52.5\text{m}^3$

2005 P2 Q10	<p>(a) The edge of a stock cube measures 1.5 centimetres. Calculate the volume of the stock cube.</p>  <p>(b) A number of the above stock cubes are packed into a cuboid box. The box is 6 centimetres long, 3 centimetres broad and 9 centimetres high.</p>  <p>How many stock cubes are needed to fill the box?</p>	1	3
	Ans		
2004 P2 Q3	<p>The sketch below shows the net of a three-dimensional shape. The net consists of a rectangle and two equal circles of radius 3 centimetres.</p>  <p>Find the <b>volume</b> of the three-dimensional shape formed from this net.</p>		3
Ans	$706.5\text{cm}^3$		

<p>2003 P2 Q8</p>	<p>Alison has started a small business making wax candles.</p> <p>She makes only one size of candle and it is in the shape of a cuboid.</p> <p>The base of the candle is a square of side 6 centimetres.</p> <p>The height of the candle is 15 centimetres.</p> <p>Alison buys her wax in 10 litre tubs.</p> <p>How many candles can she make from a tub of wax?</p>		<p>4</p>
<p>Ans</p>	<p>18 candles.</p>		
<p>2002 P2 Q3a</p>	<p>A column is in the shape of a cylinder.</p> <p>It is 450 centimetres high and its diameter is 40 centimetres.</p>		<p>2</p>
<p>Ans</p>	<p>(a) <math>565200\text{cm}^3</math></p>		

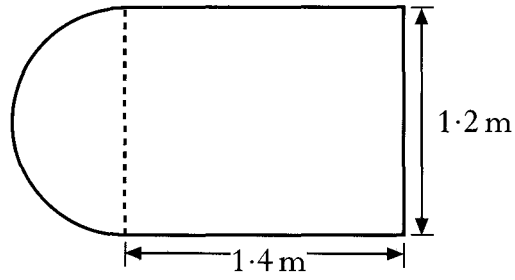
A column is in the shape of a cylinder.  
It is 450 centimetres high and its diameter is 40 centimetres.



(a) Find the volume of the column in cubic centimetres.

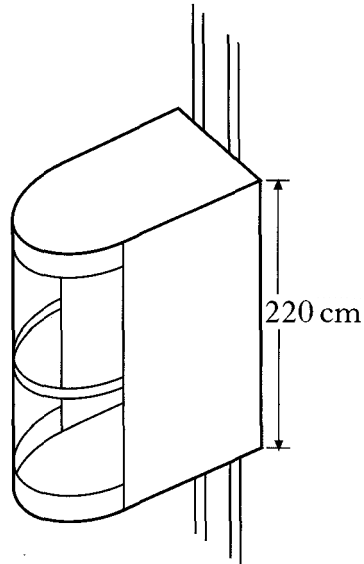
(a)  $565200\text{cm}^3$

(a) The base of a lift is in the shape of a rectangle with a semi-circular end as shown.



Calculate the area of the base of the lift.

(b) The lift is in the shape of a prism and is 220 centimetres high. Find the volume of the lift.



3

2

2001 P2 Q11

Ans

(a)  $2.2\text{m}^2$  (b)  $4.84\text{m}^3$