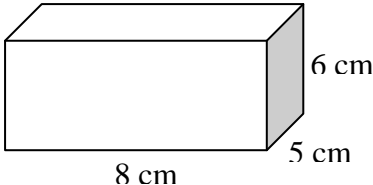
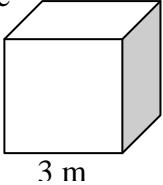
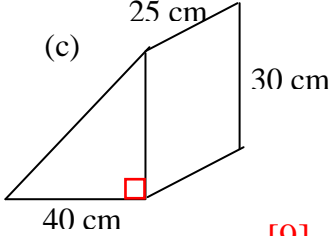


National 4
Homework Exercise 13
3D Shapes

1. Complete all calculations below **without a calculator**. Show all working!

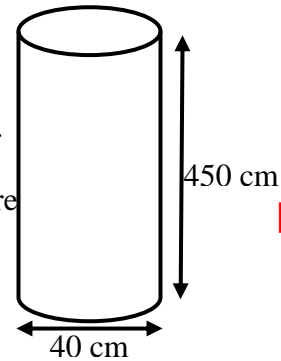
- (a) $18.54 + 0.61 - 5.3$ (b) 3.6×70 (c) 40% of 750 kg [4]

2. Calculate the volume of these shapes:-

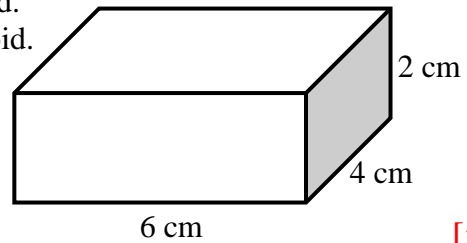
(a)  (b) Cube  (c)  [9]

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

- (a) Calculate the volume of the column in cubic centimetres [3]
 (b) Write the volume of the column in litres.



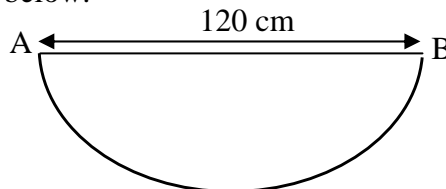
4. (a) Make a neat sketch of the net of this cuboid.
 (b) Calculate the total surface area of the cuboid.



[5]

5. A joiner is making the tables for a new coffee shop. The shape of the top of a table is a semi-circle as shown below.

AB = 120 centimetres.



The top of the table is made of wood and a metal edge is to be fixed to its perimeter.

- (a) Calculate the total length of the metal edge.
 (b) The coffee shop needs 16 tables. The joiner has 50 metres of the metal edge in the workshop.
 Will this be enough for all sixteen tables? Give a reason for your answer. [6]