

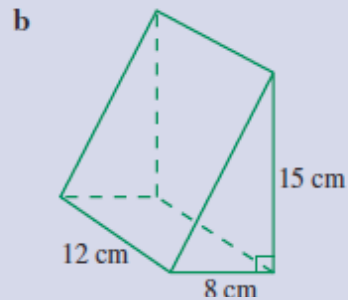
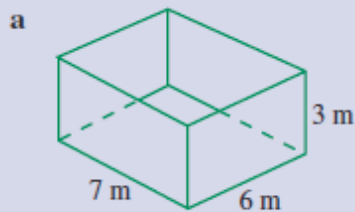


Year 10 Mathematics

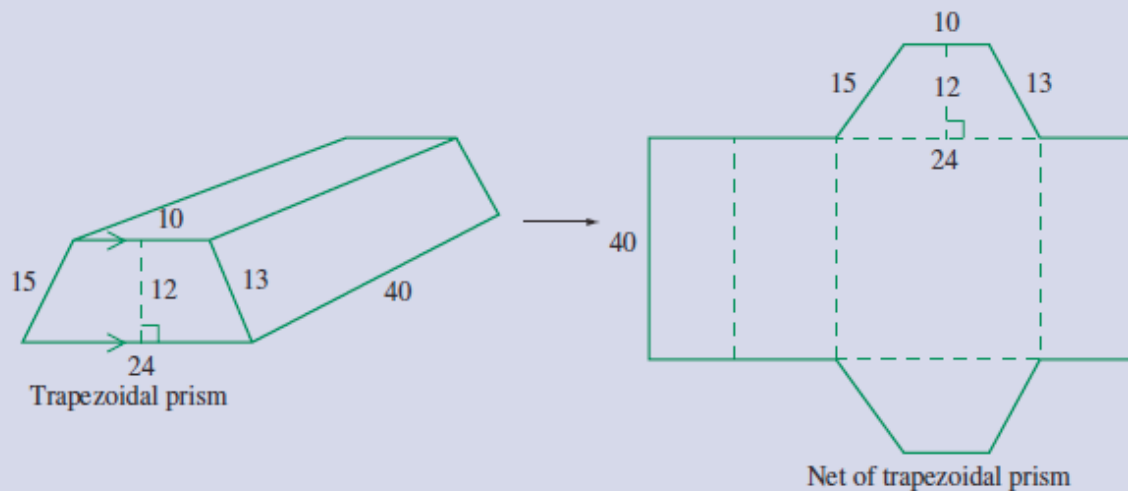
Surface Area and Volume Practice Test 2

Name _____

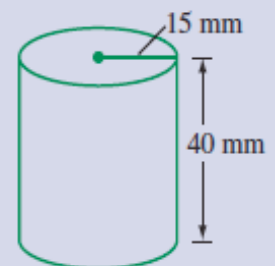
- 1 Find the surface area of each of the prisms shown below.



- 2 Calculate the surface area of this prism. (All measurements are in centimetres.)

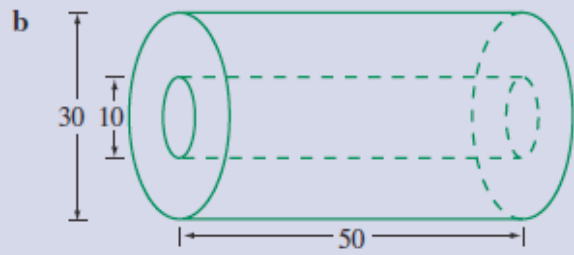
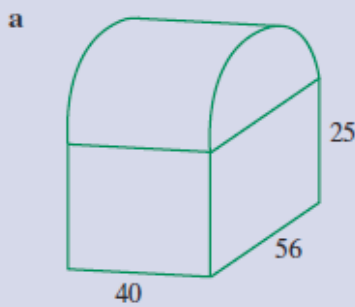


- 3 Find the surface area of a cylinder with radius 15 mm and height 40 mm (correct to the nearest mm^2).

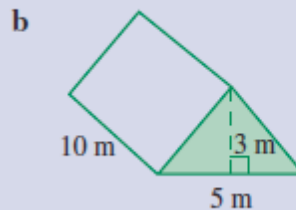
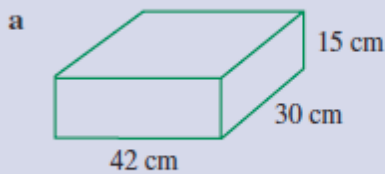


- 4 Find the surface area of a cylindrical tube, open at both ends, with radius 3 cm and length 55 cm.

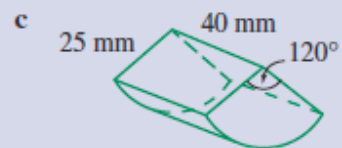
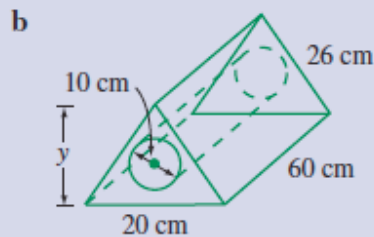
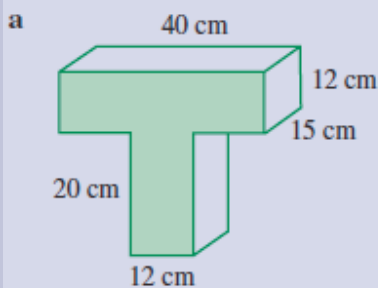
- 5 Find the surface area of each of the following solids, correct to the nearest centimetre. (All measurements are in centimetres.)



- 6 Find the volume of each of the following prisms, to two significant figures.



- 7 Calculate the volume of each of these solids.

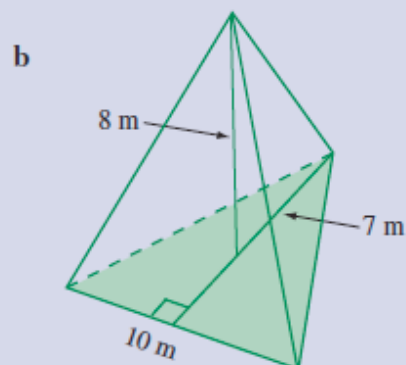
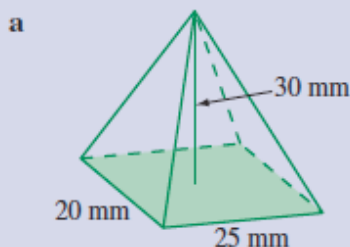


- 8 Circular wafer biscuits of diameter 4 cm are packed in a cardboard box of height 20 cm.

- a Calculate the surface area of the box.
b How much packaging would be saved (correct to the nearest cm^2) if the biscuits were packed into a cylindrical box?



- 9 Calculate the volume of each of the following pyramids (correct to one decimal place where necessary):



- 10 Calculate (correct to one decimal place) the volume of a rectangular pyramid of base 10 m by 5 m and perpendicular height 8 m.
- 11 Find the capacity (to the nearest millilitre) of a square pyramid with base edge 64 mm and slant height 40 mm.

- 12 The volume of a square pyramid is 100 cm^3 . If its height is 12 cm, calculate:
- a the area of its base
 - b the length of its base.

ANSWERS

- 1 a) 162 m^2 b) 600 cm^2
- 2 2888 cm^2
- 3 5184 mm^2
- 4 1036 cm^2
- 5 16540 cm^2
- 6 a) 18900 cm^3 b) 75 m^3
- 7 a) 10800 cm^3 b) 9688 cm^3 c) 26179.9 mm^3
- 8 a) 352 cm^2 b) 76 cm^2
- 9 a) 5000 cm^3 b) 93.3 m^3
- 10 133.3 m^3
- 11 32.768 Litres
- 12 a) $A = 25 \text{ cm}^2$ b) $L = 5 \text{ cm}$