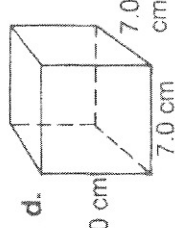
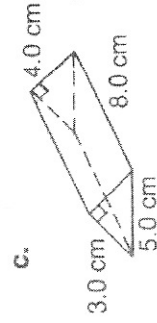
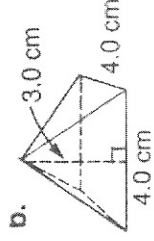
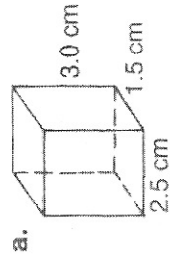
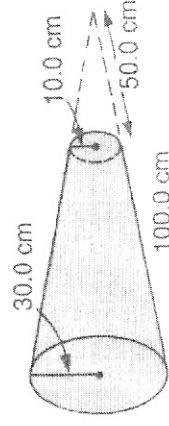


Review of Surface Area and Volume

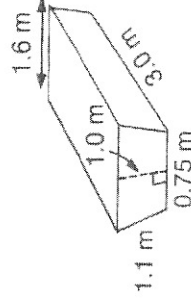
1. Find the lateral area, surface area, and volume of each solid.



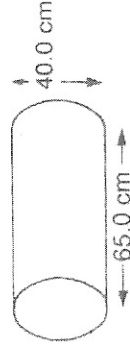
2. The wind sock at an airfield shows a pilot which way the wind is blowing. A wind sock is a frustum of a cone, open at both ends. It is made of light fabric. How much fabric is used for this wind sock?



3. How much sheet metal is needed to make this industrial hopper? The top is open and the bottom closed.



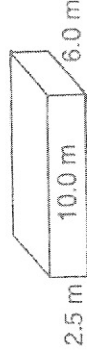
4. The Evergreen Landscaping Company is constructing soil rollers from closed cylinders filled with sand.



- a) How much metal is needed to make one roller?
b) How much sand is needed to fill one roller?

5. A tissue box measures 24.0 cm by 11.5 cm by 5.0 cm. If 50 cm² are added for overlap, what is the area of cardboard needed to make the box?

6. a) How much water will it take to fill this swimming pool three-fourths of its maximum capacity?



7. The curved surface is composed of steel panels 2.5 m by 1.5 m. About how many panels are needed for the roof?



8. A circus tent is in the shape of a regular hexagonal pyramid. The apothem of the hexagon is 4.3 m long. The perimeter of the hexagon is 30.0 m. The height of the tent is 6.0 m. What is the slant height of the tent, the surface area of the tent, and the volume of the tent?

9. A rectangular prism has length 18.0 cm and width 15.0 cm. Its volume is 4590 cm^3 . Find its height.

10. The surface area of a sphere is $144\pi \text{ in}^2$. Find the radius.

11. The volume of a cone is $96\pi \text{ ft}^3$. The height of the cone is 8 ft. Find the slant height.

12. The surface area of a triangular pyramid is 100 cm^2 . If the length of the triangular base is doubled, and the height is halved, what is the new surface area?

13. The volume of a cube is 8 in^3 . If the width and height of the cube are doubled, what is the new volume?

14. The two solids are similar. Find the unknown surface area?

