

5.4 Surface Area of a Cylinder

MathLinks 8, pages 182–187

Key Ideas Review

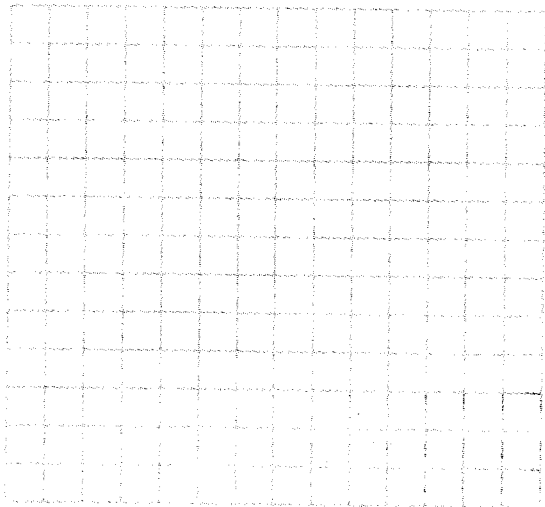
Choose from the following terms to complete #1.

- 3-D object add area circumference cylinder

1. Complete each statement.
 - a) To find the surface area of a cylinder, you _____ the _____ of each face of the object.
 - b) A net of a _____ is made up of three faces.
 - c) The rectangle in the net of a cylinder uses the _____ of the circle as one dimension.

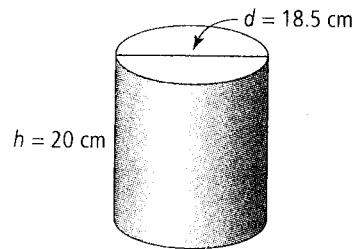
Practise and Apply

2. Sketch a net for this cylinder.

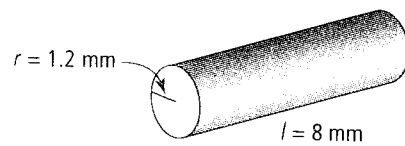


3. Estimate the surface area for each cylinder.

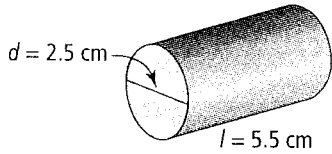
a)



b)



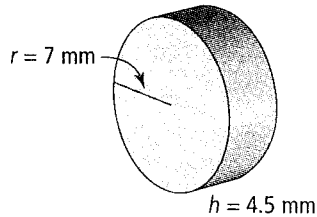
4. Calculate the surface area of this cylinder to the nearest hundredth of a square centimetre.



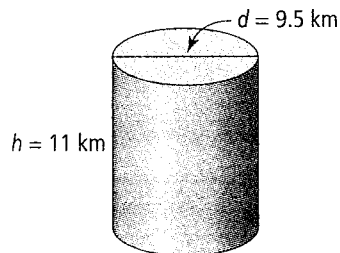
5. Use the following formula to find the surface area of each cylinder to the nearest hundredth of a square unit.

$$SA = (2 \times \pi \times r^2) + (\pi \times d \times h)$$

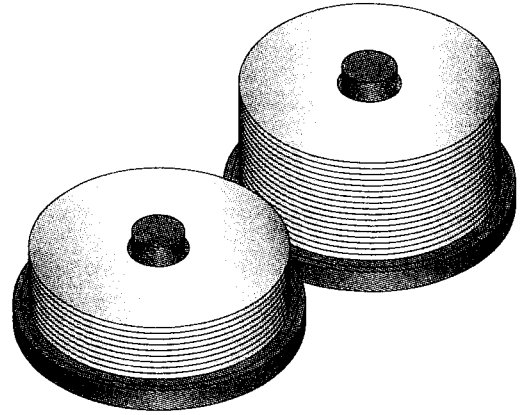
a)



b)



6. Recordable disks come in bulk packaging of various sizes.



A single compact disk has a diameter of 12 cm and a width of 0.1 cm.

- a) Calculate the surface area of one compact disk to the nearest tenth of a centimetre squared.

- b) Calculate the surface area of a bulk container that holds 50 compact disks. Explain your reasoning.