

# 7.3 Volume of a Cylinder

*MathLinks 8, pages 262–267*

## Key Ideas Review

Choose from the following terms to complete #1 to #3.

area

circle

cylinder

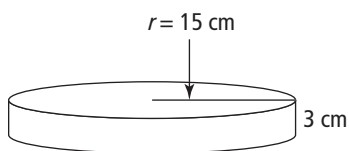
volume

1. The shape of the base of a cylinder is a \_\_\_\_\_.
2. The formula for the \_\_\_\_\_ of a \_\_\_\_\_ is  $A = \pi \times r^2$ .
3. The formula for the \_\_\_\_\_ of a \_\_\_\_\_ is  $V =$  \_\_\_\_\_ of the base  $\times$  height.

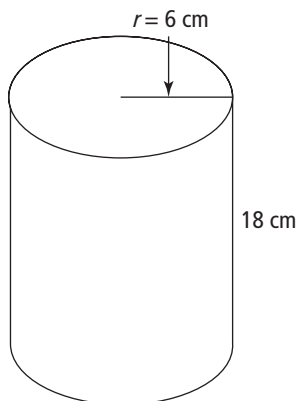
## Practise and Apply

4. Determine the volume of each cylinder. Express your answer to the nearest hundredth.

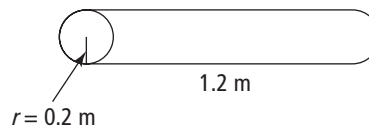
a)



b)



c)



5. Calculate the volume of each cylinder. Express your answer to the nearest hundredth.

a) radius = 7 cm, height = 10 cm

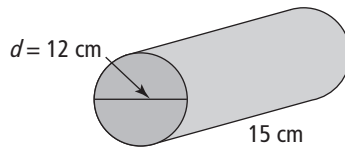
b) height = 3.2 m, radius = 1.2 m

Name: \_\_\_\_\_

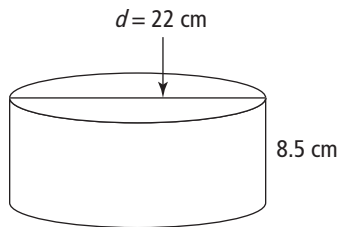
Date: \_\_\_\_\_

6. Determine the volume of each cylinder.

a)



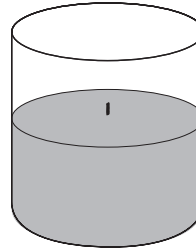
b)



- c) diameter = 4 m  
height = 9 m

- d) height = 32.5 cm  
diameter = 14 cm

7. Jade makes candles for the school craft sale. The candle mould she uses has a radius of 5 cm and a height of 6 cm.



- a) How much wax does she need to fill the mould each time?

- b) If she uses  $628 \text{ cm}^3$  of wax, how tall must the new candle mould be if the radius is 5 cm? Show your thinking.

8. How much soil will you need to fill the semi-circular planter? Express your answer to the closest thousandth.

