

7.1

Understanding Volume

MathLinks 8, pages 246–253

Key Ideas Review

Choose from the following terms to complete #1.

base

cylinder

does

does not

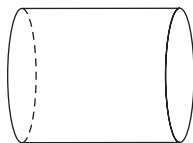
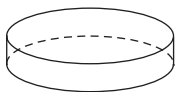
height

prism

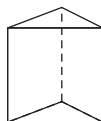
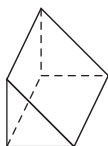
1. a) Volume of a right _____ or right _____ is found by multiplying the area of the _____ and the _____.

- b) If you change the orientation, it _____ affect the volume.

2. a) Shade the base of each right cylinder.



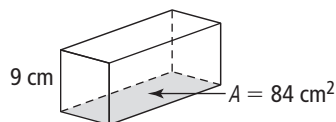
- b) Shade the base of each right triangular prism.



Practise and Apply

3. Use the figure measurements to calculate the volume.

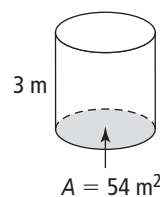
a)



$$V = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

$$V = \underline{\hspace{2cm}}$$

b)



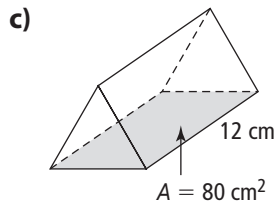
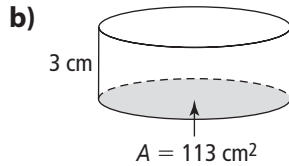
$$V = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

$$V = \underline{\hspace{2cm}}$$

Name: _____

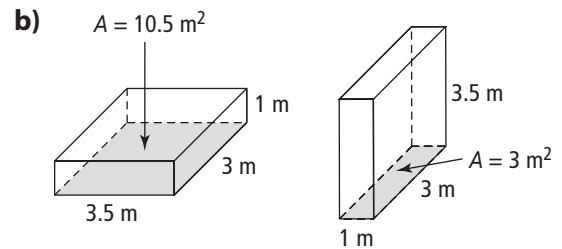
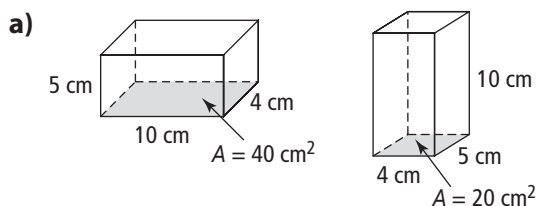
Date: _____

4. Calculate the volume of each prism or cylinder.



5. What is the volume of a right prism that has a base with an area of 15 cm^2 and a height of 7 cm?

6. Which rectangular prism has the larger volume? Show your thinking.



7. Calculate the height of each rectangular prism.

a) volume = 63 cm^3
area of base = 9 cm^2

b) volume = 26 m^3
area of base = 4 m^2

8. Nikki and Taylor have to fill the pool this summer. The area of the pool bottom is 27 m^2 . The height that the water needs to be is 0.9 m. How much water do they need to put in the pool?

9. Chad wants to cut back on the amount of treats he is eating. He has two chocolate bars to choose from. Which one has less chocolate? Show your thinking.

