

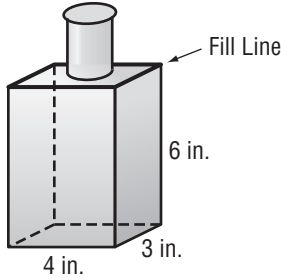
# Lesson 1 Problem-Solving Practice

## Volume of Rectangular Prisms

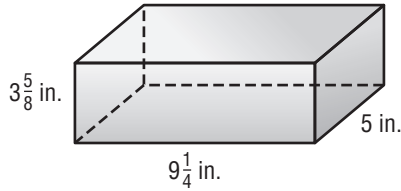
**1. OLYMPICS** Olympic gold medal winner Michael Phelps competes in a pool with required dimensions 25 meters by 50 meters by 2 meters. What is the volume of the Olympic-sized pool? Explain how you found your answer. **2,500 m<sup>3</sup>; To find the volume, multiply length × width × height or first find the base area, length × width, and then multiply the product by the height.**

**2. DUMP TRUCKS** Raphael drives a standard-sized dump truck. The dimensions of the bed of the truck are length 15 feet, width 8 feet, and height 6 feet. What is the volume of the bed of the dump truck? **720 ft<sup>3</sup>**

**3. GIFTS** William has some antique bottles. He is going to fill the bottles with bath soap and give them away as gifts. Use the figure to find the volume up to the fill line of a bottle. **72 in<sup>3</sup>**

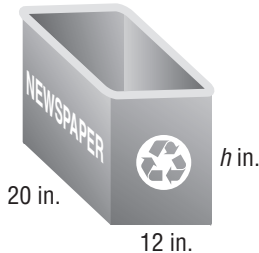


**4. JEWELRY** Janine keeps her jewelry in a jewelry box like the figure below. Find the volume of Janine's jewelry box.

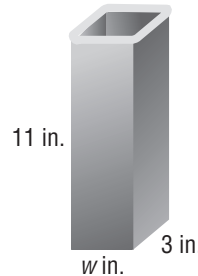


**167 <sup>21</sup>/<sub>32</sub> in<sup>3</sup>**

**5. RECYCLING** The town of Riverview provides a rectangular recycling bin for newspapers to each household. If the volume is 3,840 cubic inches, what is the height of the recycling bin? **16 in.**



**6. CANDLE MAKING** Kyle fills the candle mold with liquid candle wax. If the candle has a volume of 99 cubic inches, what is the width of the mold? **3 in.**



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