Unit 8, Lesson 9

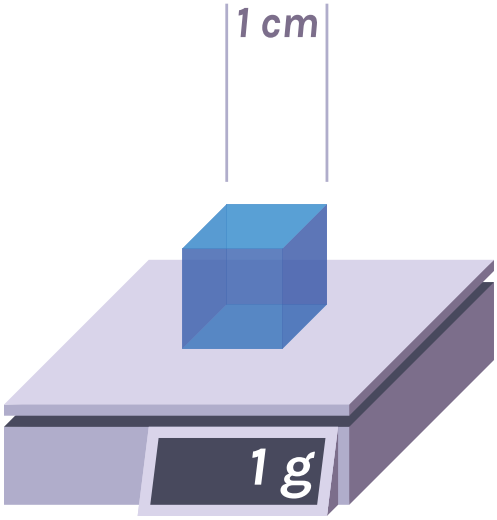
# Problem Solving with Volume: Water

Let's solve problems about volume of water.

Warm-up

## Notice and Wonder: Cubic Centimeters and Grams

What do you notice? What do you wonder?

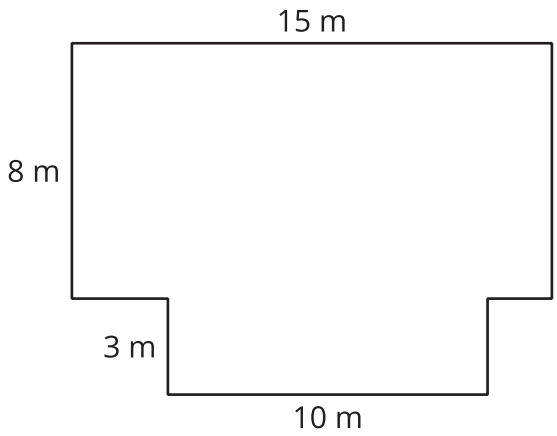


Activity 1

## Catching Rainfall

Here is a diagram showing the roof of a house.

1. What is the area of the roof?




2. Each month an average of 5 cm of rain falls on the house. How many cubic cm of rain is that?

3. There are 1,000 cubic cm in 1 liter. How many liters of water fall on the house each month?

4. You decide to build a reservoir to catch the rain that falls on the roof. It will be shaped like a rectangular prism. What edge lengths would you use for the reservoir? Explain or show your reasoning.

Activity 2

## How Much Water?

1. What are some of the ways you use water at home?

2. Estimate how much water, in liters, you use at your home in a month.

3. How many centimeters of rain need to fall on your home each month to supply your home?

4. What are some challenges with using rainwater that falls on the roof of your home? Explain your reasoning.