

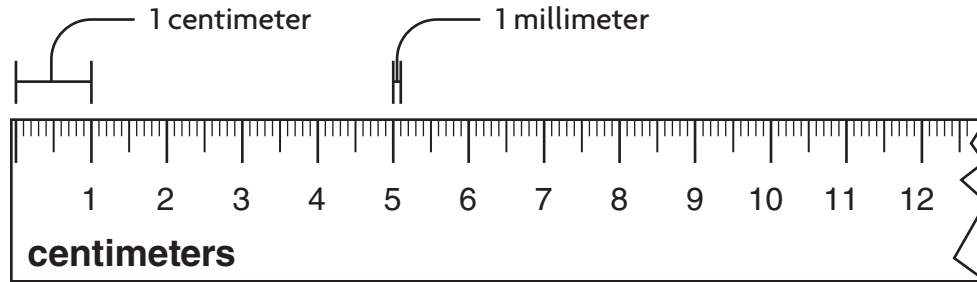
Name _____

Metric Units of Length

Meters (m), **decimeters** (dm), centimeters (cm), and **millimeters** (mm) are all metric units of length. You can use a ruler and a meterstick to find out how these units are related.

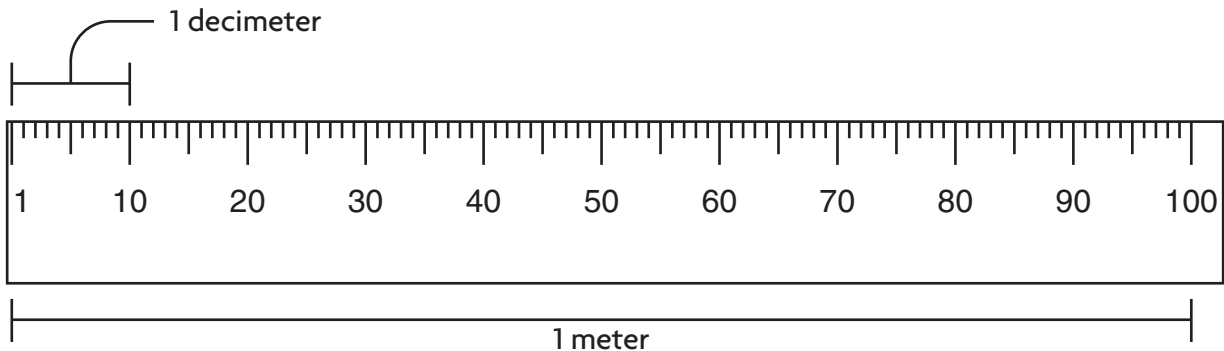
Materials: ruler, meterstick

Step 1 Look at a metric ruler. Most look like the one below.



The short marks between each centimeter mark show millimeters.
1 centimeter has the same length as a group of 10 millimeters.

Step 2 Look at a meterstick. Most look like the one below.



1 decimeter has the same length as a group of 10 centimeters.

Step 3 Use the ruler and the meterstick to compare metric units of length.

1 centimeter = 10 millimeters

1 decimeter = 10 centimeters

1 meter = 10 decimeters

1 meter = 100 centimeters

Complete.

1. 3 meters = _____ decimeters

2. 5 meters = _____ centimeters

3. 4 centimeters = _____ millimeters

4. 9 decimeters = _____ centimeters

Name _____

Going to Greater Lengths

The kilometer is a metric unit of length that is equal to 1,000 meters. Use this information and what you already know about metric length to answer the questions.

1. Edward entered into a 5-kilometer race. How many meters will he need to run?

2. Nancy walked 2 kilometers from her house to the library. How many decimeters did she walk?

3. Jed rode his bike 1.5 kilometers from home to school. How many centimeters did Jed ride?

4. Ursula hiked $6\frac{1}{2}$ kilometers through the woods. How many decimeters did she hike?

5. An Olympic swimming pool is 50 meters long. How many lengths would Ian have to swim in order to swim 1 kilometer?

6. Terence ran 3 kilometers in the same time it took Ali to run 2,400 meters. Who ran farther? How much farther?

7. **Stretch Your Thinking** The **hectometer** is another metric unit of length. 1 hectometer = 100 meters. What is the relationship between kilometers and hectometers?
