

Measure Yourself in Metric!

- YOU WILL NEED:**
 metric tape measure
 or metric ruler
 meter stick
 paper
 pencil
 string (about two meters)
 scissors
 calculator

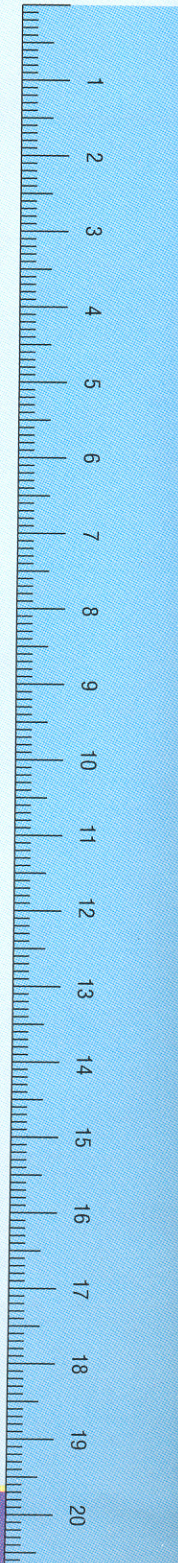
Suppose you wanted to measure your height. You would probably measure yourself with a yard stick or measuring tape, and the answer would be in feet and inches. Let's try a different way of measuring using the **Metric System** and see what happens.

To help you get started, look at the metric ruler printed on this page. Each numbered mark is one **centimeter**. Notice the small marks between each centimeter mark. These small marks are millimeters. One centimeter is made up of 10 **millimeters**.

1 Have your partner take the string and mark it at your foot and head to show your height. To measure your height, just measure the length of the string one mark to the other! How many centimeters is it? It's probably more than 100!

2 If you are taller than 100 centimeters, you can write your height in two ways. One way is just to give the total number of centimeters. Here's another way: If your height is 122 centimeters, you can also write that as 1 meter, 22 centimeters. To get the 22 centimeters, just subtract 100 centimeters from your total height. Then write your height as 1 meter and the remaining number of centimeters.

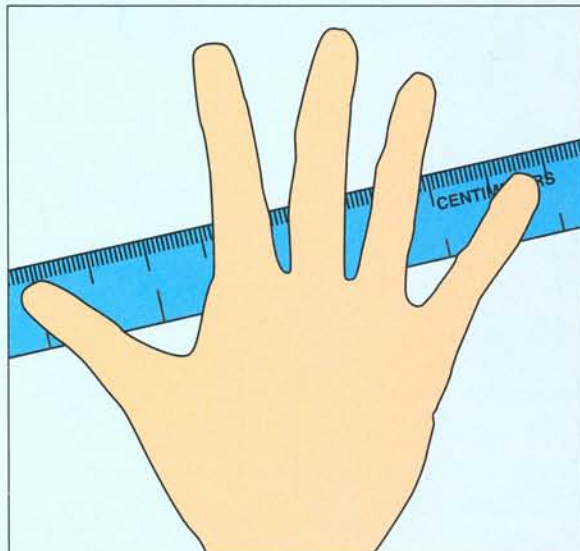
3 If your height is 153 centimeters, how could you write it using meters and centimeters? A very tall person might be 205 centimeters tall. How would you write this height using meters and centimeters?



4 Spread one hand as far apart as you can. Press it down on your metric ruler. Measure the distance from the tip of your little finger to the tip of your thumb. How many centimeters is it? If your fingers don't land exactly on centimeter marks, you will have to count the millimeters beyond the last centimeter mark. One possible answer could be 15 centimeters, 6 millimeters.

5 Measure the width of the fingernail on your little finger. This is probably less than 1 centimeter so you will need to count the millimeters. How many millimeters is it?

6 Now look at your thumb from the side. Try to measure the thickness of your thumbnail. It's probably less than 1 millimeter. Does it look like $\frac{1}{2}$ millimeter or $\frac{1}{4}$ millimeter or even less?



If you measure a long distance, it can be a very large number if you use centimeters. Often it's easier to understand a measurement when it is given in meters and centimeters, instead of just in centimeters. Try the following activity to see what we mean.

7 Find a space where you can jump across a room. Set up a starting line. Take three jumps and make a mark to show how far you went. Now measure this total distance with the meter stick. First measure off whole meters until you are close to the mark. Then measure the remaining distance to the mark in centimeters.

8 If the mark is not exactly at a centimeter line, you will also need to count the millimeters beyond the last centimeter mark. Your answer might be something like 2 meters, 43 centimeters, 3 millimeters. Use a separate sheet of paper to record the distances for you and your partner in _____ meters, _____ centimeters, _____ millimeters.

