Measuring Up Metric

Equal Amounts, Different Units

Overheard during track team warmups:

I ran in a **5 kilometer** race last

Wow! That's **5,000 meters.**

Did you drink enough water?

I think so. About **5 liters.**

Wow! That's **5,000 milliliters.**

So, did you drop any weight from training for the race?

Maybe. About **half a kilogram.**

Wow! That's **500 grams!**

You know what? You're really weird sometimes.

Scaling units up or down is easy in the metric system. Each prefix represents a **factor** of 10, so you can simply adjust using our normal decimal number system.

PRACTICE converting metric units below:

→ The average weight of a man in Brazil is **72.7 kilograms**. To **convert** to grams from kilograms, you adjust the decimal point like this:

72.7 (0 0) **kilograms** = 72,700 grams

→ Children's Advil tablets have only **100 milligrams** of ibuprofen compared to the adult form which has 200. To **scale** up to grams from milligrams, you adjust the decimal point like this:

100 **milligrams** = 0.1 gram

→ Professional basketball player Hasheem Thabeet is **2.21 meters** tall. To find out his height in centimeters, you adjust the decimal point like this:

2.21 **meters** = 221 centimeters

Your turn!

Milk is one of the main ingredients in most macaroni and cheese recipes. If your recipe calls for **1.25 liters**, what would be the same amount in milliliters?

1.25 **liters** = _____ milliliters