

A Formula for SI Catch-up

Scientists use SI all the time. But most people in the United States still use non-SI units. So what do you do if you have data in non-SI units and you want to convert the data into SI units, or vice versa? Have no fear! Conversion charts, like the one shown below, can help you accomplish the task with ease.

SI Conversion Chart

If you know	Multiply by	To find
inches (in.)	2.54	centimeters (cm)
feet (ft)	30.50	centimeters (cm)
yards (yd)	0.91	meters (m)
miles (mi)	1.61	kilometers (km)
ounces (oz)	28.35	grams (g)
pounds (lb)	0.45	kilograms (kg)
fluid ounces (fl oz)	29.57	milliliters (mL)
cups (c)	0.24	liters (L)
pints (pt)	0.47	liters (L)
quarts (qt)	0.94	liters (L)
gallons (gal)	3.79	liters (L)

PROCEDURE: *To convert from non-SI units to SI units*, find the non-SI unit in the left column and multiply it by the number in the center column. The resulting number will be in the SI unit in the right column.

To convert a SI unit into a non-SI unit, find the SI unit in the right column and divide by the number in the center column to get the non-SI unit on the left.

SAMPLE PROBLEM: Convert 15 gal into liters (L).

$$15 \times 3.79 = 56.85 \text{ L}$$

Complete the Conversions!

1. Use the SI conversion chart to do the following conversions (round to the nearest hundredths):

- a. 15 oz = _____ g b. 40 cm = _____ in.
 c. 2 c = _____ L d. 27 m = _____ yd
 e. 5.5 gal = _____ L f. 115 lb = _____ kg

A Formula for SI Catch-up, continued

2. A chemistry experiment calls for 6 mL of HCl (hydrochloric acid). How many fluid ounces is this?

3. Simone wants to compete in a 15 km run. The farthest she can run is 10 mi. Can she finish the race?

4. A cake recipe calls for 1 cup of milk. How many milliliters is this?

5. Julie is 162 cm tall. How tall is she in feet?

6. George ran 1000 yd in gym class. How many kilometers did he run?

7. Alejandro weighed 8 lb, 4 oz when he was born. How many grams did he weigh?
