

# METRICS AND MEASUREMENT

Name \_\_\_\_\_

Scientists use the metric system of measurement, based on the number 10. It is important to be able to convert from one unit to another.

kilo	hecto	deca	<b>Basic Unit</b>	deci	centi	milli
(k)	(h)	(da)	gram (g)	(d)	(c)	(m)
1000	100	10	liter (L)	.1	.01	.001
$10^3$	$10^2$	$10^1$	meter (m)	$10^{-1}$	$10^{-2}$	$10^{-3}$

Using the above chart, we can determine how many places to move the decimal point and in what direction by counting the places from one unit to the other.

**Example:** Convert 5 mL to L.

**Answer:** To go from millil (m) to the basic unit, liters, count on the above chart three places to the left. Move the decimal point three places to the left and 5 mL becomes 0.005 L.

Convert the following.

1. 35 mL = \_\_\_\_\_ dL

6. 4,500 mg = \_\_\_\_\_ g

2. 950 g = \_\_\_\_\_ kg

7. 25 cm = \_\_\_\_\_ mm

3. 275 mm = \_\_\_\_\_ cm

8. 0.005 kg = \_\_\_\_\_ dag

4. 1,000 L = \_\_\_\_\_ kL

9. 0.075 m = \_\_\_\_\_ cm

5. 1,000 mL = \_\_\_\_\_ L

10. 15 g = \_\_\_\_\_ mg