METRIC CONVERSIONS OVERVIEW from www.purplemath.com

Metric units are easy to work with, since they are based on multiples of ten. The common basic units are meters (for length), grams (for mass), and liters (for volume). There are many metric-unit prefixes, but the most common ones are kilo-, hector-, deka-, deci-, centi-, and milli-.

To remember the prefixes in order, use the following sentence:

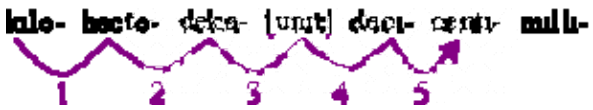
King Henry Doesn't [Usually] Drink Chocolate Milk

The first letters of the words stand for the prefixes, with "Usually" in the middle standing for the "unit", being meters, grams, liters, etc. Move from one prefix to the next by moving the decimal point one place to the left or right, filling in with zeroes as necessary.

kilo-	**hecto-**	**deka-**	**[unit]**	**deci-**	**centi-**	**milli-**
k	**h**	**da**	**---**	**d**	**c**	**m**

Examples: 1 km = 10 hm = 100 dam = 1000 m = 10,000 dm = 100,000 cm = 1,000,000 mm
1 mL= 0.1 cL = 0.01 dL = 0.001 L = 0.000 1 daL = 0.00001 hL = 0.000001 kL

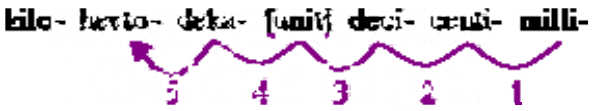
PROBLEM 1: Convert 12.54 kilometers to centimeters.
(How many jumps is it from "kilo-" to "centi-"? Five places to the right.)



So the decimal point is moved five places to the right, filling in the extra spaces with zeroes:

ANSWER: 1,254,000 cm

PROBLEM 2: Convert 457 mL to hL.
(How many jumps is it from "milli-" to "hecta-"? Five places to the left.)



So the decimal point is moved five places to the left, filling in the empty spots after the decimal point with zeroes:

ANSWER: 0.00457 hL

That's all there is to metric conversions. Know the prefixes and remember the King Henry sentence. Just count the number of jumps and note the direction; then move the decimal point the same direction and the same number of places.