

Some notes for studying:

1 Gigameter (Gm)	1,000,000,000m	
1 Megameter (Mm)	1,000,000m	
1 Kilometer (Km)	1000m	
1 Hectameter (Hm)	100m	
1 Dekameter (dam)	10m	
1 meter (m)	1m	
	1m	10 decimeters (dm)
	1m	100 centimeters (cm)
	1m	1000 millimeters (mm)
	1m	1,000,000 micrometers or microns (um)
	1m	1,000,000,000 nanometers (nm)
Other:		
1um = 1/1000th mm	or 1000um = 1mm	
1nm = 1/1,000th um		
1nm = 1/1,000,000th mm	or 1,000,000 nm = 1mm	
There are 1000 mm in a meter and 1000um in a mm and 1000 nm in a micrometer.		

The above values are for distances (meters), but they could easily be for mass (grams) or time (seconds).

Metric Dimensional Analysis Problems:

1. Convert 105m to km.
2. A piece of property is found to be 499 dm long. Find the length in cm.
3. How many mm are there in .00000597 km?
4. A book has a mass of 0.6321kg. Calculate the mass in cg.
5. How many ug are in 0.000311 hg?
6. A 2.50 L bottle of soda contains how many ml?
7. What is the mass in kg of a 220000 Mg bag of fertilizer?
8. 2356 dag is how many kg?
9. How many seconds are in 56 years?

These involve converting the English to the metric system. The procedure is the same:

10. Convert 46.5 inches to cm (1 inch = 2.54 cm)
11. Convert 84 miles to km (1 km = 0.6 miles)
12. What is the mass of a 17 ounce steak in grams? (1 oz = 28.3 grams)

This one involves a combination of two unites (a derived unit). Try it out...

13. Convert the speed of 56km/hr to m/s.
14. Convert the speed of 55 miles/h to km/h. (1mile = 1609m)
15. Convert the speed of 55 miles/h to km/s.

You should be able work the above problems using a number line as well...
(King Henry...)