

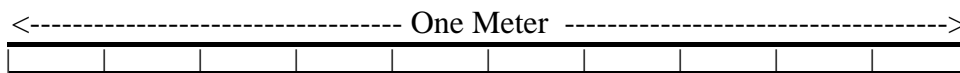
The Metric System Conversion and Units

Remember:

1 kilometer = 10 hectometers or 100 dekameters or 1000 meters

1 hectometer = 10 dekameters or 100 meters

1 dekameter = 10 meters



1/10 of a meter is a DECIMETER (dm)

One Centimeter

is 1/10 of a dm

is 1/100 of a m

One Millimeter

is 1/10 of a centimeter

is 1/100 of a decimeter

is 1/1000 of a meter

Measuring Length:

The usual unit for average measures of length is the METER. The meter is equal to 39.37 inches, just slightly longer than a yard. It is divided into units of ten. This makes the metric system convenient because conversion from one unit to another can be made simply by multiplying or dividing by ten. This is the same as moving the decimal point to the right or left one place.

For measuring distances greater than a meter the unit can be multiplied by ten, giving a DEKAmeter (10 meters), HECTOmeter (100 meters) and KILOmeter (1000 meters). Converting from one to the other is simple:

$$60 \text{ meters} = \underline{\quad ? \quad} \text{ hectometers}$$

$$60 \text{ meters} \times \frac{1 \text{ hectometer}}{100 \text{ meters}} = \frac{60}{100} = 0.6 \text{ hectometers}$$

$$13 \text{ meters} = \underline{\quad ? \quad} \text{ kilometers}$$

$$13 \text{ meters} \times \frac{1 \text{ kilometer}}{1000 \text{ meters}} = \frac{13}{1000} = 0.013 \text{ kilometers}$$

$$0.5 \text{ kilometers} = \underline{\quad ? \quad} \text{ meters}$$

$$0.5 \text{ kilometers} \times \frac{1000 \text{ meters}}{1 \text{ kilometer}} = 0.5 \times 1000 = 500 \text{ meters}$$

You just move the decimal point the number of places to the left or right that you are multiplying or dividing by (10, 100 etc.)

For measuring distances smaller than a meter, the unit can be divided into tenths (1/10), giving the decimeter (1/10 meter), centimeter (1/100 meter), and millimeter (1/1000 meter)

PRACTICE CONVERTING THESE:

1. 345 mm = _____ dm

8. 92183.938 km = _____ dm

2. 23 Mm = _____ dam

9. 89230 Mg = _____ mg

3. 790.8 mm = _____ km

10. .7988 daL = _____ ML

4. 34521 μ m = _____ cm

11. .087 mL = _____ kL

5. 982374 dm = _____ hm

12. 234 g = _____ μ g

6. 1245 mL = _____ μ L

13. 93984 cg = _____ dag

7. 1234.985 kg = _____ μ g

14. 1235 mL = _____ L

15. 15009 m = _____ Mm