

Metric System

1) The "Base" units include:

- _____ is the SI unit for length, and it is abbreviated by _____
- _____ is the SI unit for time, and it is abbreviated by _____
- _____ is the SI unit for volume, and it is abbreviated by _____
- _____ is the SI unit for mass, and it is abbreviated by _____
- _____ is the SI unit for temperature, and it is abbreviated by _____
- _____ is the SI unit for amount of a substance, and it is abbreviated by _____

Every measurement will include _____

2) Large Prefixes:

- _____ (K) is _____ times the size of the base unit
- _____ (H) is _____ times the size of the base unit
- _____ (Da) is _____ times the size of the base unit

3) Small Prefixes:

- _____ (D) is _____ times the size of the base unit
- _____ (C) is _____ times the size of the base unit
- _____ (M) is _____ times the size of the base unit

4) What measurement goes between the large prefixes and the small prefixes? _____

5) A good way to remember these prefixes is by remembering this acronym.....

K _____ H _____ D _____ B _____ D _____ C _____ M _____

K H D B D C M

6) Are these metric units used for quantitative or qualitative data? _____

7) How can you tell? _____

8) What is accuracy (Give me an answer AND a drawing)?

9) What is precision (Give me an answer AND a drawing)?

10) Can you be precise without being accurate? If so, explain how.

Conversion Practice

So sometimes we want to convert between two different types of measurement. For instance, I would not want to talk about driving from Charleston to Cleveland in terms of centimeters; that would be ridiculous. (And more importantly, why would you drive to Cleveland?) We would want to use kilometers instead.

In order to convert, you need to follow 2 basic steps.

- 1) Figure out your starting point and where you want to go (direction and distance).
- 2) Find the decimal and move it the same direction and same amount you moved it for step one.

11) 1.8 hectometer = _____ meter

12) 12.5 decagrams = _____ kilograms

13) 5.04 decaliters = _____ deciliters

14) 6.12 centigrams = _____ milligrams

15) 4.7 centiliters = _____ decaliters

16) 1.2 decimeter = _____ meters

17) 4.78 decameters = _____ centimeters

18) Think about this a second. Why would it be better if the United States used the metric system instead of "imperial units", such as yards, miles, gallons, and acres? (The United States is one of only a handful of countries that does not use the metric system as the official system of measurement for the country.)

19) What is the order of the prefixes from Biggest size to Smallest size?
