Measurements

Measurements are comparisons of properties against accepted standards, called units.

ENGLISH / US SYSTEM OF UNITS:

$$1 \text{ foot} = 12 \text{ inches } 1 \text{ yard} = 3 \text{ Feeb} \quad 1 \text{ mile} = 1760 \text{ yards}$$

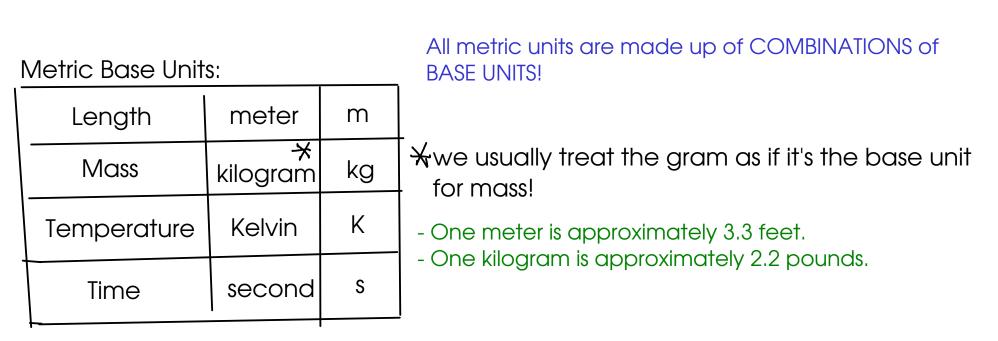
$$5280 \text{ Feet} = 1 \text{ mile}$$

So what's the problem? The English system of units is a mess. Units for the same type of measurement do not relate to one another in a meaningful way,

This makes the English system hard to use and prone to conversion errors.

English units are nonstandard and difficult to use. Solution?

THE METRIC SYSTEM



Metric units may be made larger or smaller by adding PREFIXES.

Some very common metric prefixes:

mega-	10 6	Μ	Bigger units
kilo-	10	k	
centi-	2. 10	с	
milli-	10~3	m	smaller units
micro-	10 -6	M	

MEMORIZE the common metric prefixes listed in the study guide

Applying prefixes

$$\int m = m \left(\frac{1}{100} m \right)$$

$$\int cm = 10^{-2} m \left(\frac{1}{100} m \right)$$

$$\int Km = 10^{3} m \left(1000 m \right)$$