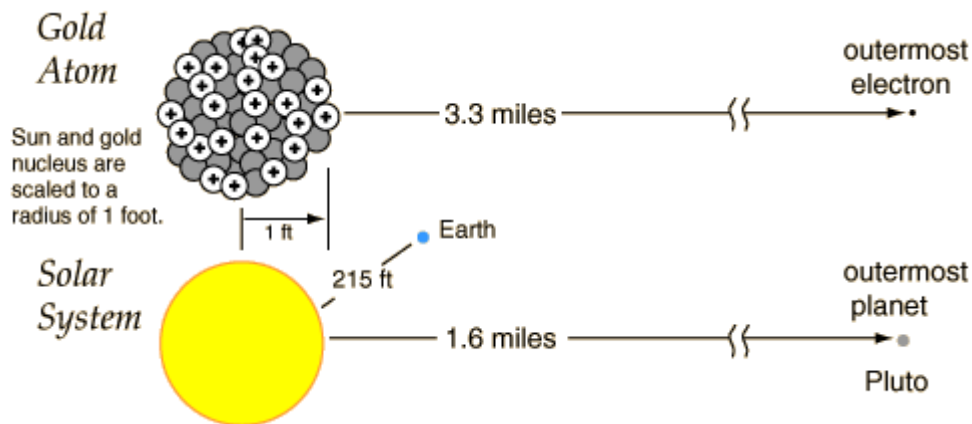




Prefix	Symbol	Multiplier
giga	G	$10^9$
mega	M	$10^6$
kilo	k	$10^3$
milli	m	$10^{-3}$
micro	$\mu$	$10^{-6}$
nano	n	$10^{-9}$
pico	p	$10^{-12}$
femto	f	$10^{-15}$



## Basic Mechanical Units

	SI Units (MKS)	(CGS)	U.S. Common
<b>Length (L)</b>	meter (m)	centimeter (cm)	foot (ft)
<b>Time (T)</b>	second (s)	second (s)	second (s)
<b>Mass (M)</b>	kilogram (kg)	gram (gm)	slug
Velocity (L/T)	m/s	cm/s	ft/s
Acceleration (L/T <sup>2</sup> )	m/s <sup>2</sup>	cm/s <sup>2</sup>	ft/s <sup>2</sup>
Force (ML/T <sup>2</sup> )	kg m/s <sup>2</sup> =Newton(N)	gm cm/s <sup>2</sup> = dyne	slug ft/s <sup>2</sup> =pound(lb)
Work (ML <sup>2</sup> /T <sup>2</sup> )	N m = joule (j)	dyne cm = erg	lb ft = ft lb
Energy (ML <sup>2</sup> /T <sup>2</sup> )	joule	erg	ft lb
Power (ML <sup>2</sup> /T <sup>3</sup> )	j/s = watt (W)	erg/s	ft lb/s

**Accuracy:**

the number of significant digits a number has.

**Precision:**

the decimal position of the last significant digit.

When **adding or subtracting**

**approximate** numbers, keep as many decimal places in your answer as contained in the number having the **fewest decimal places**.

When **multiplying** 2 or more approximate numbers, round the result to as many digits as are in the factor having the **fewest significant digits**.

THIS IS FOR **APPROXIMATE NUMBERS**.

Eg

2041.2 has 5 significant figures and 1 decimal place

0.006 has 1 significant figure and 3 decimal places

So to add them

**2041.2 + 0.006 = 2041.206** BUT the fewest decimal places is 1 (2041.2) so our answer is quoted to 1 decimal place =

**2041.2**

Multiply them

**2041.2 \* 0.006 = 12.2472** BUT 0.006 has only 1 significant digit so the answer is = **10**

