Honors Physics Mr. McMullen

Name _____ Date _____ Period_____

Multiples and Prefixes for Metric Units*

Multiple	*Prefix (and Abbreviation)*	*Pronunciation*
10^{18}	exa- (E)	ex'a (*a* as in *about*)
10^{15}	peta- (P)	pet'a (as in *petal*)
10^{12}	tera- (T)	ter'a (as in *terrace*)
10^{9}	giga- (G)	ji'ga (*a* as in *about*)
10^{6}	mega- (M)	meg'a (as in *mega*phone)
10^{3}	kilo- (k)	kil'o (as in *kilo*watt)
10^{2}	hecto- (h)	hek'to (*heck-toe*)
10	deka- (da)	dek'a (*deck* plus *a* as in *about*)
10^{-1}	deci- (d)	des'i (as in *deci*mal)
10^{-2}	centi- (c)	sen'ti (as in *senti*mental)
10^{-3}	milli- (m)	mil'li (as in *mili*tary)
10^{-6}	micro- (μ)	mi'kro (as in *micro*phone)
10^{-9}	nano- (n)	nan'oh (*an* as in *ant*)
10^{-12}	pico- (p)	pe'ko (*peek-oh*)
10^{-15}	femto- (f)	fem'toe (*fem* as in *fem*inine)
10^{-18}	atto- (a)	at'to (as in *ana*tomy)

* For example, 1 gram (g) multiplied by 1000 (10^3) is 1 kilogram (kg), or multiplied by 1/1000 (10^{-3}) is 1 milligram (mg).

Conversion Factors

Mass	1 g = 10^{-3} kg = 6.85×10^{-5} slug
	1 kg = 10^3 g = 6.85×10^{-2} slug
	1 slug = 1.46×10^4 g = 14.6 kg
	1 u = 1.66×10^{-24} g = 1.66×10^{-27} kg
	1 metric ton = 1000 kg
Length	1 cm = 10^{-2} m = 0.394 in.
	1 m = 10^{-3} km = 3.28 ft = 39.4 in.
	1 km = 10^3 m = 0.62 mi
	1 in. = 2.54 cm = 2.54×10^{-2} m
	1 ft = 12 in. = 30.48 cm = 0.3048 m
	1 mi = 5280 ft = 1609 m = 1 609 km
	1 Å = 10^{-10} m = 10^{-8} cm
Area	1 cm^2 = 10^{-4} m^2 = 0.1550 $in.^2$ = $1\ 08 \times 10^{-3}$ ft^2
	1 m^2 = 10^4 cm^2 = 10.76 ft^2 = 1550 $in.^2$
	1 $in.^2$ = 6.94×10^{-3} ft^2 = 6.45 cm^2 = 6.45×10^{-4} m^2
	1 ft^2 = 144 $in.^2$ = 9.29×10^{-2} m^2 = 929 cm^2