

UNIT: Laboratory Equipment

SI Unit Prefixes

Name _____ Period _____ Date ____ / ____ / ____

Prefix	Symbol		Scientific Notation	Meaning
exa	E	1 000 000 000 000 000 000	10^{18}	
peta	P	1 000 000 000 000 000	10^{15}	
tera	T	1 000 000 000 000	10^{12}	trillion
giga	G	1 000 000 000	10^9	billion
mega	M	1 000 000	10^6	million
kilo	k	1 000	10^3	thousand
hecto	h	100	10^2	hundred
deka	da	BOLDFACE 10	10^1	ten
----		are used a LOT! 1	10^0	
deci	d	0.1	10^{-1}	tenth
centi	c	0.01	10^{-2}	hundredth
milli	m	0.001	10^{-3}	thousandth
micro	μ	0.000 001	10^{-6}	millionth
nano	n	0.000 000 001	10^{-9}	billionth
pico	p	0.000 000 000 001	10^{-12}	
femto	f	0.000 000 000 000 001	10^{-15}	
atto	a	0.000 000 000 000 000 001	10^{-18}	

Some questions to help you as you study the chart:

1. Which prefixes and/or symbols are you familiar with?
2. Note when the symbols become upper-case letters.
If you were counting dollars, how many would you have at M? G? T? P? E?
3. If you were wondering how much of a dollar you had, what coin would be in your pocket for d? c?
4. Why do scientists usually write the number in scientific notation?
5. Look at the exponents (the “power of ten”; the small number to the upper right of the 10).
What determines that number? What does it stand for?
6. Why are some exponents negative?
Does a negative exponent tell you the number is bigger or smaller than zero?
7. From da to E, where would the decimal go in the number? Why isn’t it there?
8. Which prefixes do ordinary folk see most often?