Assignment:\_\_\_\_\_ Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Grams <-> Moles <-> Molecules

***SHOW YOUR WORK!!***

Notes on how to work with numbers in scientific notation like 6.02 x1023.

-When the powers of 10 are multiplied, exponents are added; when divided, exponents are subtracted.

-Numbers expressed with powers of 10 cannot be added or subtracted directly unless the powers of 10 are the same. If they are not, you will have to move decimals and change powers of 10 until they match.

1. How many molecules are there in 24 grams of FeF3?
2. How many molecules are there in 450 grams of Na2SO4?
3. How many grams are there in 2.3 x 1024 atoms of silver?
4. How many grams are there in 7.4 x 1023 molecules of AgNO3?
5. How many grams are there in 7.5 x 1023 molecules of H2SO4?
6. How many molecules are there in 122 grams of Cu(NO3)2?
7. How many molecules are there in 230 grams of CoCl2?



Avogadro’s Number: 6.022 X 1023