**Chemistry A Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 **Period\_\_\_\_\_\_\_**

**The Mole!**

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| **1.     .** | **Calculate the mass of:** **a) 2.00 moles of water, H2O** **b) 4.38 moles of chlorine, Cl2** **c)  0.025 moles of ammonia, NH3** **d)  1.8 moles of oxygen, O2**   |
| **2.** | **Calculate the number of moles in:****a)  25 g of helium, He** **b)  12.5 g of methane, CH4** **c)   0.364 g of iodine, I2** **d)   40.0 g of sodium, Na** |
| **3.** | **Calculate the number of atoms in:** **a)  2.50 moles of Neon, Ne** **b)  0.050 moles of iron, Fe**   |
| **4.** | **Calculate the number of moles in:** **a)  9.03 X 1023 atoms of Cu** **b)  3.76 X 1025 molecules of SO2** **c)  8.6 X 1018 electrons**   |
| **5.** | **Calculate the number of molecules in:** **a)   12.5 g of nitrogen, N2** **b)   0.76 g of ammonia, NH3** **c)   0.60 g of hydrogen, H2**   |
| **6.** | **Calculate the mass of:** **a)  4.25 X 1024 atoms of C** **b)  6.02 X 1021 molecules of H2O** **c)  one trillion atoms of Zn** **d)  one atom of U** |