**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** |