**CW 4 – Combined Mole Problems**

**Name:**

**Period: 1 4**

1. How many molecules are in 16.0 g of barium phosphite?
2. What is the mass, in grams, of 3.37 × 1023 water molecules?
3. How many carbon monoxide molecules are in 16.0 L of gas at STP?
4. What is the volume, in liters, of 92.9 g of ozone (O3) gas at STP?
5. What is the volume, in liters, of 8.68 × 1024 molecules of sulfur trioxide gas at STP?
6. What is the mass, in grams, of 8.87 × 1025 formula units of ammonium sulfate?
7. What is the volume, in mL, of 332.0 g of dinitrogen monoxide gas (laughing gas) at STP?
8. How many molecules are in 99.9 g of vanillin (C8H8O3), the compound responsible for the smell of vanilla?
9. What is the mass of 25.00 L of sulfur trioxide gas at STP?
10. How many atoms are in .3333 L of krypton gas at STP?