**CW3: Combined Mole Problems**

Name: Period: 1 4

**Directions: Solve the following problems. Show all your work, including units, and make sure your answers have units and the correct significant figures.**

Combined Mole Problems

1. How many molecules are in 0.0413 L of ozone gas, O3, at STP?
2. What is the volume, in L, 5.97 × 1023 molecules of SO3 gas at STP?
3. What is the mass, in g, of 9.475 × 1022 formula units of Sr(NO3)2?
4. How many formula units are in 44.44g of H2C2O4?
5. What is the mass, in g, of 66.6666 L of H2O gas at STP?
6. What is the volume, in L, of 777.77g of F2 gas at STP?
7. How many molecules are in 88.88g of sodium hydroxide?
8. What is the mass of 99.999 L of sulfur hexafluoride gas at STP?
9. What is the volume, in L, of 10.10 g of diatomic hydrogen gas at STP?
10. How many formula units are in 111.11 g of potassium permanganate?