

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

Date: \_\_\_\_\_

## Moles

Avagadro's Number =  $6.02 \times 10^{23}$  atoms/mol  
1 mol of a gas at STP occupies 22.4 L

1. How many atoms of Oxygen are there in 18g of water? \_\_\_\_\_
2. How many atoms of Hydrogen are there in 18g of water? \_\_\_\_\_
3. How many molecules of  $H_2O$  are there in 18g of water? \_\_\_\_\_
4. What is the mass of 1 mole of  $O_2$ ? \_\_\_\_\_
5. What is the mass of 1 molecule of  $O_2$ ? \_\_\_\_\_
6. What is the mass of 2 mol of  $H_2SO_4$ ? \_\_\_\_\_
7. What is the density of  $O_2$  at STP? \_\_\_\_\_
8. 3 L of a gas weighs 2 g. What is the molecular mass? \_\_\_\_\_
9. What volume does 22g of  $CO_2$  at STP occupy? \_\_\_\_\_
10. How many atoms of Hydrogen are in 67.2 L of  $H_2$  at STP? \_\_\_\_\_