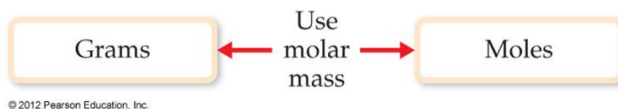


Chemistry  
Converting between Grams and Moles

Name \_\_\_\_\_

*Instructions: Read the following problems and complete the correct calculations. SHOW ALL WORK. Round to the nearest hundredths place.*



**Converting Grams to Moles**

1) How many moles of  $\text{Zn}(\text{NO}_3)_2$  are in 143.50 g of  $\text{Zn}(\text{NO}_3)_2$ ?

2) How many moles of  $\text{NH}_4\text{Cl}$  are in 86.6 g of  $\text{NH}_4\text{Cl}$ ?

3) How many moles are in 0.2550 g of aluminum chloride?

4) How many moles are in 6.955 g of ammonium carbonate?

5) How many moles are in 1.252 g of  $\text{NaCl}$ ?

### Converting Moles to Grams

6) What is the mass, in grams, of 0.105 mole of sucrose ( $C_{12}H_{22}O_{11}$ )?

7) What is the mass in grams of  $1.50 \times 10^{-2}$  mol of CdS?

8) What is the mass, in grams, of 2.54 moles of caffeine,  $C_8H_{10}N_4O_2$ ?

9) What is the mass, in grams, of 1.223 moles of iron(III) sulfate?

10) What is the mass, in grams, of 6.45 moles of  $H_2O$ ?