

**Name**

**Date** \_\_\_\_\_ **Block** \_\_\_\_\_

# Grams/Moles Calculations

## Worksheet III

*Given the following, name the compound and find the number of moles:*

- 1) 30 grams of  $\text{H}_3\text{PO}_4$
  - 2) 25 grams of HF
  - 3) 110 grams of  $\text{NaHCO}_3$
  - 4) 1.1 grams of  $\text{FeCl}_3$
  - 5) 987 grams of  $\text{Ra}(\text{OH})_2$
  - 6) 564 grams of copper
  - 7) 12.3 grams of  $\text{CO}_2$
  - 8) 89 grams of  $\text{Pb}(\text{CH}_3\text{COO})_4$

*Given the following, name the compound and find the number of grams:*

9) 4 moles of Cu(CN)<sub>2</sub>

10) 5.6 moles of C<sub>6</sub>H<sub>6</sub>

11) 21.3 moles of BaCO<sub>3</sub>

12) 1.2 moles of (NH<sub>4</sub>)<sub>3</sub>PO<sub>3</sub>

13) 9.3 x 10<sup>-3</sup> moles of SmO

14) 6.6 moles of ZnO

15) 5.4 moles of K<sub>2</sub>SO<sub>4</sub>

16) 88.4 moles of Ni<sub>3</sub>

## Grams/Moles Calculations – Answer Key

*Given the following, name the compound and find the number of moles:*

- 1) 30 grams of H<sub>3</sub>PO<sub>4</sub> (**phosphoric acid**) **0.31 moles of H<sub>3</sub>PO<sub>4</sub>**
- 2) 25 grams of HF (**hydrofluoric acid**) **1.25 moles HF**
- 3) 110 grams of NaHCO<sub>3</sub> (**sodium bicarbonate or baking soda**) **1.31 moles**
- 4) 1.1 grams of FeCl<sub>3</sub> (**iron (III) chloride**) **0.0068 moles**
- 5) 987 grams of Ra(OH)<sub>2</sub> (**radium hydroxide**) **3.80 moles**
- 6) 564 grams of copper (**copper**) **0.11 moles**
- 7) 12.3 grams of CO<sub>2</sub> (**carbon dioxide**) **0.28 moles**
- 8) 89 grams of Pb(CH<sub>3</sub>COO)<sub>4</sub> (**lead(IV) acetate**) **0.20 moles**

*Given the following, name the compound and find the number of grams:*

- 9) 4 moles of Cu(CN)<sub>2</sub> (**copper (II) cyanide**) **462 grams**
- 10) 5.6 moles of C<sub>6</sub>H<sub>6</sub> (**benzene**) **436.8 grams**
- 11) 21.3 moles of BaCO<sub>3</sub> (**barium Carbonate**) **4202.5 grams**
- 12) 1.2 moles of (NH<sub>4</sub>)<sub>3</sub>PO<sub>4</sub> (**ammonium phosphate**) **159.6 grams**
- 13) 9.3 x 10<sup>-3</sup> moles of SmO (**samarium Oxide**) **1.5 grams**
- 14) 6.6 moles of ZnO (**zinc oxide**) **537.2 grams**
- 15) 5.4 moles of K<sub>2</sub>SO<sub>4</sub> (**potassium sulfate**) **941.2 grams**
- 16) 88.4 moles of NI<sub>3</sub> (**nitrogen iodide**) **34679.3 grams**