

# MOLE CALCULATION

## PRACTICE WORKSHEET

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

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

Answer the following questions.

1. How many grams are in 4.5 moles of NaF?

2. How many moles are in  $1.2 \times 10^3$  grams of ammonia?

3. How many grams are in 0.02 moles of beryllium iodide?

4. How many moles are in 98.3 grams of aluminum hydroxide?

5. How many grams are in 3.3 moles of potassium sulfide?

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### Answers

1. How many grams are in 4.5 moles of NaF?

Molar mass of NaF = 41.98 g/mol

1 mole of NaF weighs 41.98 grams

4.5 moles of NaF weighs  $41.98 \times 4.5$  grams = 188.91 grams

2. How many moles are in  $1.2 \times 10^3$  grams of ammonia?

Molar mass of  $\text{NH}_3$  = 17 g/mol

1 mole of  $\text{NH}_3$  weighs 17 grams

1200 grams of  $\text{NH}_3$  represent  $(1200/17)$  moles = 70.58 moles

3. How many grams are in 0.02 moles of beryllium iodide?

Molar mass of  $\text{BeI}_2$  = 262.82 g/mol

1 mole of  $\text{BeI}_2$  weighs 262.82 grams

0.02 moles of  $\text{BeI}_2$  weigh 5.25 grams

4. How many moles are in 98.3 grams of aluminum hydroxide?

Molar mass of  $\text{Al(OH)}_3$  = 78 g/mol

1 mole of  $\text{Al(OH)}_3$  weighs 78 grams

98.3 grams of  $\text{Al(OH)}_3$  represent 1.26 moles

5. How many grams are in 3.3 moles of potassium sulfide?

Molar mass of  $\text{K}_2\text{S}$  = 110.262 g/mol

1 mole of  $\text{K}_2\text{S}$  weighs 110.262 grams

3.3 moles of  $\text{K}_2\text{S}$  weigh  $3.3 \times 110.262$  = 363.86 grams