

Name: _____

Date: _____

Period: _____

Percentage Composition Worksheet

Give the % composition of all elements in these compounds. Show all work!

Remember: $\% \text{ composition of element} = \frac{\text{mass of element}}{\text{mass of compound}} \times 100$

When calculating mass of element don't forget to account for the subscripts.

1. ammonium sulfite $(\text{NH}_4)_2\text{SO}_3$ molar mass of compound:

% N _____

% H _____

% S _____

% O _____

2. aluminum acetate $\text{Al}(\text{C}_2\text{H}_3\text{O}_2)_3$ molar mass of compound:

% Al _____

% C _____

% H _____

% O _____

3. sodium bromide NaBr molar mass of compound:

% Na _____

% Br _____

4. copper (II) hydroxide $\text{Cu}(\text{OH})_2$ molar mass of compound:

% Cu _____

% O _____

% H _____

5. magnesium carbonate MgCO_3 molar mass of compound:
 % Mg _____
 % C _____
 % O _____
6. iron (II) phosphate $\text{Fe}_3(\text{PO}_4)_2$ molar mass of compound:
 % Fe _____
 % P _____
 % O _____
7. beryllium nitride BeN_2 molar mass of compound:
 % Be _____
 % N _____
8. potassium cyanide KCN molar mass of compound:
 % K _____
 % C _____
 % N _____
9. manganese (III) nitrate $\text{Mn}(\text{NO}_3)_3$ molar mass of compound:
 % Mn _____
 % N _____
 % O _____
10. lithium phosphide Li_3P molar mass of compound:
 % Li _____
 % P _____

Percentage Composition Worksheet – Answer Key

Give the % composition of all elements in these compounds. *Show all work!*

- | | | | |
|-----|-------------------------|------|-------------|
| 1) | ammonium sulfite | % N | 24.1 |
| | | % H | 6.9 |
| | | % S | 27.6 |
| | | % O | 41.3 |
| 2) | aluminum acetate | % Al | 13.2 |
| | | % C | 35.3 |
| | | % H | 4.4 |
| | | % O | 47.1 |
| 3) | sodium bromide | % Na | 22.4 |
| | | % Br | 77.6 |
| 4) | copper (II) hydroxide | % Cu | 65.1 |
| | | % O | 32.8 |
| | | % H | 2.1 |
| 5) | magnesium carbonate | % Mg | 28.8 |
| | | % C | 14.2 |
| | | % O | 56.9 |
| 6) | iron (II) phosphate | % Fe | 46.8 |
| | | % P | 17.3 |
| | | % O | 35.8 |
| 7) | beryllium nitride | % Be | 49.1 |
| | | % N | 50.9 |
| 8) | potassium cyanide | % K | 60.1 |
| | | % C | 18.4 |
| | | % N | 21.5 |
| 9) | manganese (III) nitrate | % Mn | 22.8 |
| | | % N | 17.4 |
| | | % O | 59.8 |
| 10) | lithium phosphide | % Li | 40.0 |
| | | % P | 60.0 |
| 11) | nickel (III) sulfate | % Ni | 28.9 |
| | | % S | 23.7 |
| | | % O | 47.3 |