

Name \_\_\_\_\_

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

## Percent Composition Worksheet II

Find the percent compositions of all of the elements in the following compounds:



Cu: \_\_\_\_\_

Br: \_\_\_\_\_

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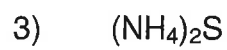


Na: \_\_\_\_\_

O: \_\_\_\_\_

H: \_\_\_\_\_

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N: \_\_\_\_\_

H: \_\_\_\_\_

S: \_\_\_\_\_

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N: \_\_\_\_\_

S: \_\_\_\_\_

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5)  $\text{KMnO}_4$

K: \_\_\_\_\_

Mn: \_\_\_\_\_

O: \_\_\_\_\_

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6)  $\text{HCl}$

H: \_\_\_\_\_

Cl: \_\_\_\_\_

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7)  $\text{Mg}(\text{NO}_3)_2$

Mg: \_\_\_\_\_

N: \_\_\_\_\_

O: \_\_\_\_\_

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8)  $(\text{NH}_4)_3\text{PO}_4$

N: \_\_\_\_\_

H: \_\_\_\_\_

O: \_\_\_\_\_

P: \_\_\_\_\_

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9)  $\text{Al}_2(\text{SO}_4)_3$

Al: \_\_\_\_\_

S: \_\_\_\_\_

O: \_\_\_\_\_

## Percent Composition Worksheet II

Find the percent compositions of all of the elements in the following compounds:

1)  $\text{CuBr}_2$

$$\text{Cu: } 1(63.55) = 63.55 \rightarrow \left(\frac{63.55}{223.35}\right)100 =$$

$$\text{Br: } 2(79.90) = 159.8 \rightarrow \left(\frac{159.8}{223.35}\right)100 =$$

$$\hline 223.35$$

Cu: 28.45%

Br: 71.55%

2)  $\text{NaOH}$

$$\text{Na: } 1(22.99) = 22.99 \rightarrow (22.99/40)100 =$$

$$\text{O: } 1(16.00) = 16.00 \rightarrow (16.00/40)100 =$$

$$\text{H: } 1(1.01) = 1.01 \rightarrow (1.01/40)100 =$$

$$\hline 40$$

Na: 57.48%

O: 40.00%

H: 2.53%

3)  $(\text{NH}_4)_2\text{S}$

$$\text{N: } 2(14.01) = 28.02 \rightarrow (28.02/68.17)100 =$$

$$\text{H: } 8(1.01) = 8.08 \rightarrow (8.08/68.17)100 =$$

$$\text{S: } 1(32.07) = 32.07 \rightarrow (32.07/68.17)100 =$$

$$\hline 68.17$$

N: 41.10%

H: 11.85%

S: 47.04%

4)  $\text{N}_2\text{S}_2$

$$\text{N: } 2(14.01) = 28.02 \rightarrow (28.02/92.16)100 =$$

$$\text{S: } 2(32.07) = 64.14 \rightarrow (64.14/92.16)100 =$$

$$\hline 92.16$$

N: 30.40%

S: 69.60%

5)  $\text{KMnO}_4$

$$\begin{aligned} \text{K}: 1(39.10) &= 39.10 \rightarrow (39.10/158.04)100 = \\ \text{Mn}: 1(54.94) &= 54.94 \rightarrow (54.94/158.04)100 = \\ \text{O}: 4(16.00) &= 64.00 \rightarrow (64.00/158.04)100 = \\ &\underline{158.04} \end{aligned}$$

$$\text{K}: \underline{24.74\%}$$

$$\text{Mn}: \underline{\cancel{37.93\%}} \quad 34.76\%$$

$$\text{O}: \underline{40.50\%}$$

6)  $\text{HCl}$

$$\begin{aligned} \text{H}: 1(1.01) &= 1.01 \rightarrow (1.01/36.46)100 = \\ \text{Cl}: 1(35.45) &= 35.45 \rightarrow (35.45/36.46)100 = \\ &\underline{36.46} \end{aligned}$$

$$\text{H}: \underline{2.77\%}$$

$$\text{Cl}: \underline{97.23\%}$$

7)  $\text{Mg}(\text{NO}_3)_2$

$$\begin{aligned} \text{Mg}: 1(24.31) &= 24.31 \rightarrow (24.31/148.33)100 = \\ \text{N}: 2(14.01) &= 28.02 \rightarrow (28.02/148.33)100 = \\ \text{O}: 6(16.00) &= 96.00 \rightarrow (96.00/148.33)100 = \\ &\underline{148.33} \end{aligned}$$

$$\text{Mg}: \underline{16.39\%}$$

$$\text{N}: \underline{18.89\%}$$

$$\text{O}: \underline{64.72\%}$$

8)  $(\text{NH}_4)_3\text{PO}_4$

$$\begin{aligned} \text{N}: 3(14.01) &= 42.03 \rightarrow (42.03/149.12)100 = \\ \text{H}: 12(1.01) &= 12.12 \rightarrow (12.12/149.12)100 = \\ \text{P}: 1(30.97) &= 30.97 \rightarrow (30.97/149.12)100 = \\ \text{O}: 4(16.00) &= 64.00 \rightarrow (64.00/149.12)100 = \\ &\underline{149.12} \end{aligned}$$

$$\text{N}: \underline{28.19\%}$$

$$\text{H}: \underline{8.13\%}$$

$$\text{O}: \underline{20.77\%}$$

$$\text{P}: \underline{42.92\%}$$

9)  $\text{Al}_2(\text{SO}_4)_3$

$$\begin{aligned} \text{Al}: 2(26.98) &= 53.96 \rightarrow (53.96/342.17)100 = \\ \text{S}: 3(32.07) &= 96.21 \rightarrow (96.21/342.17)100 = \\ \text{O}: 12(16.00) &= 192.00 \rightarrow (192.00/342.17)100 = \\ &\underline{342.17} \end{aligned}$$

$$\text{Al}: \underline{15.77\%}$$

$$\text{S}: \underline{28.12\%}$$

$$\text{O}: \underline{56.11\%}$$