

Molar Conversions Practice, Part III

Calculate the molar mass of each of the following substances.

1) $\text{BaO} = \text{_____ g/mol}$

2) $\text{Al}_2\text{S}_3 = \text{_____ g/mol}$

3) $\text{Ba}(\text{NO}_3)_2 = \text{_____ g/mol}$

4) $\text{NaOH} = \text{_____ g/mol}$

5) $\text{P}_4\text{O}_{10} = \text{_____ g/mol}$

Perform the following conversions. Show all work.

6) $50.8 \text{ g BaO} = \text{_____ mol}$

7) $75.0 \text{ g Ba}(\text{NO}_3)_2 = \text{_____ mol}$

8) $3.66 \times 10^{-5} \text{ g P}_4\text{O}_{10} = \text{_____ mol}$

9) $2.72 \times 10^3 \text{ g Al}_2\text{S}_3 = \text{_____ mol}$

10) $160.0 \text{ g NaOH} = \text{_____ mol}$

Perform the following conversions. Show all work.

11) $1.30 \text{ mol Ca}(\text{OH})_2 = \text{_____ g}$

12) $1.93 \text{ mol Fe} = \text{_____ g}$

13) $0.0937 \text{ mol C}_6\text{H}_{12}\text{O}_6 = \text{_____ g}$

14) $17.4 \text{ mol C}_4\text{H}_{10} = \text{_____g}$

15) $1.19 \times 10^3 \text{ mol U} = \text{_____g}$

Perform the following conversions. Show all work.

16) $1.75 \text{ g FeO} = \text{_____ mol FeO}$

17) $1.75 \text{ g FeO} = \text{_____ formula units of FeO}$

18) $7.30 \times 10^{25} \text{ molecules of H}_2\text{O} = \text{_____ mol H}_2\text{O}$

19) $7.30 \times 10^{25} \text{ molecules of H}_2\text{O} = \text{_____ g H}_2\text{O}$

20) $109 \text{ g Au} = \text{_____ atoms Au}$

