

Name:

What are the molecular weights of the following compounds? (all masses must be to nearest hundredth)

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|----------------------|--|
| 1) NaOH | 2) H ₃ PO ₄ |
| 3) H ₂ O | 4) Mn ₂ Se ₇ |
| 5) MgCl ₂ | 6) (NH ₄) ₂ SO ₄ |

Solve the following:

- 1) **How many moles** are in 15 grams of lithium?
- 2) **How many grams** are in 2.4 moles of sulfur?
- 3) **How many moles** are in 22 grams of argon?
- 4) **How many grams** are in 88.1 moles of magnesium?
- 5) **How many moles** are in 2.3 grams of phosphorus?
- 6) **How many grams** are in 11.9 moles of chromium?
- 7) **How many moles** are in 9.8 grams of calcium?
- 8) **How many grams** are in 238 moles of arsenic?

Solve the following:

- 9) How many grams are in 4.5 moles of sodium fluoride, NaF?
- 10) How many moles are in 98.3 grams of aluminum hydroxide, Al(OH)₃?
- 11) How many grams are in 0.02 moles of beryllium iodide, BeI₂?
- 12) How many moles are in 68 grams of copper (II) hydroxide, Cu(OH)₂?
- 13) How many grams are in 3.3 moles of potassium sulfide, K₂S?
- 14) How many moles are in 1.2×10^3 grams of ammonia, NH₃?
- 15) How many grams are in 2.3×10^{-4} moles of calcium phosphate, Ca₃(PO₃)₂?

Solve the following:

- 1) How many moles are in 40.0 grams of water?
- 2) How many grams are in 3.7 moles of Na₂O?
- 3) How many atoms are in 14 moles of cadmium?
- 4) How many moles are in 4.3×10^{22} molecules of H₃PO₄?
- 5) How many molecules are in 48.0 grams of NaOH?
- 6) How many grams are in 4.63×10^{24} molecules of CCl₄?