

**Atomic Mass and Molecular Mass Practice**

- State the full meaning of the following: Example: 3 Na – 3 sodium atoms 4 KCl – 4 formula units of potassium chloride  
a) Fe      b) CuCl<sub>2</sub>      c) 2 Ca      d) 4 Fe<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub>
- How many atoms of hydrogen are represented in each of the following molecules?  
a) KHCO<sub>3</sub>      b) H<sub>2</sub>SO<sub>4</sub>      c) C<sub>3</sub>H<sub>8</sub>      d) HC<sub>2</sub>H<sub>3</sub>O<sub>2</sub>      e) (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>      f) (CH<sub>3</sub>)<sub>3</sub>COH
- Asbestos, a known cancer-causing agent, has a typical formula, Ca<sub>3</sub>Mg<sub>5</sub>(Si<sub>4</sub>O<sub>11</sub>)<sub>2</sub>(OH)<sub>2</sub>. How many atoms of each element are given in the formula?
- How many atoms of each kind are represented in the following formulas?  
a) Na<sub>3</sub>PO<sub>4</sub>                                      b) Ca(H<sub>2</sub>PO<sub>4</sub>)<sub>2</sub>                                      c) C<sub>4</sub>H<sub>10</sub>  
d) Fe<sub>3</sub>(AsO<sub>4</sub>)<sub>2</sub>                                      e) Cu(NO<sub>3</sub>)<sub>2</sub>                                      f) MgSO<sub>4</sub>•7H<sub>2</sub>O
- Calculate the molecular mass of H<sub>3</sub>PO<sub>4</sub> and HClO<sub>4</sub>.
- Calculate the molecular masses of:  
a) SO<sub>2</sub>      b) P<sub>4</sub>O<sub>10</sub>      c) UF<sub>6</sub>      d) NH<sub>3</sub>      e) CCl<sub>4</sub>
- Determine the molecular mass of these compounds:  
a) methane, CH<sub>4</sub>                      b) potassium perchlorate                      c) phosphorus trichloride                      d) sulfuric acid  
e) silicon dioxide                      f) nitrogen dioxide                      g) dinitrogen pentoxide                      h) glucose, C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>
- What is the molecular mass of each of these common chemicals compounds?  
a) sodium bicarbonate, NaHCO<sub>3</sub>                      b) laughing gas, N<sub>2</sub>O  
c) Potassium permanganate, KMnO<sub>4</sub>                      d) limestone, CaCO<sub>3</sub>  
e) Epsom salts, MgSO<sub>4</sub>•7H<sub>2</sub>O                      f) ozone, O<sub>3</sub>

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