

Name : \_\_\_\_\_ Date : \_\_\_\_\_



# MOLAR MASS WORKSHEET



Determine the molar masses of the following compounds

1. Water

2. HCl

3. CO<sub>2</sub>

4. NaCl

5. H<sub>2</sub>SO<sub>4</sub>

6. Ca(OH)<sub>2</sub>

7. Ba(NO<sub>3</sub>)<sub>2</sub>

8. KMnO<sub>4</sub>



# MOLAR MASS WORKSHEET



## Answers

### 1. Water

Molar mass of water = (2 x Molar mass of hydrogen) + Molar mass of oxygen =  
(2 x 1.01) + 16 = 18.02 g/mol

### 2. HCl

Molar mass of HCl = Molar mass of hydrogen + Molar mass of chlorine = 1.01 + 35.5 =  
36.51 g/mol

### 3. CO<sub>2</sub>

Molar mass of CO<sub>2</sub> = Molar mass of carbon + (2 x Molar mass of oxygen) = 12 + (2 x 16) =  
44 g/mol

### 4. NaCl

Molar mass of NaCl = Molar mass of sodium + Molar mass of chlorine = 23 + 35.5 =  
58.5 g/mol

### 5. H<sub>2</sub>SO<sub>4</sub>

Molar mass of H<sub>2</sub>SO<sub>4</sub> = (2 x Molar mass of hydrogen) + Molar mass of sulfur +  
(4 x Molar mass of oxygen) = (2 x 1.01) + 32.065 + (4 x 16) = 98.085 g/mol

### 6. Ca(OH)<sub>2</sub>

Molar mass of Ca(OH)<sub>2</sub> = Molar mass of calcium + (2 x Molar mass of oxygen) +  
(2 x Molar mass of hydrogen) = 40.08 + (2 x 16) + (2 x 1.01) = 74.1 g/mol

### 7. Ba(NO<sub>3</sub>)<sub>2</sub>

Molar mass of Ba(NO<sub>3</sub>)<sub>2</sub> = Molar mass of barium + (2 x Molar mass of nitrogen) +  
(6 x Molar mass of oxygen) = 137.33 + (2 x 14.01) + (6 x 16) = 295.35 g/mol

### 8. KMnO<sub>4</sub>

Molar mass of KMnO<sub>4</sub> = Molar mass of potassium + Molar mass of manganese +  
(4 x Molar mass of oxygen) = 39.1 + 54.94 + (4 x 16) = 158.04 g/mol