# MOLAR MASS WORKSHEET



Determine the molar masses of the following compounds.

- 1. PbSO<sub>4</sub>
- 2. AgF
- 3. C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>
- 4. NaBr
- 5. (NH<sub>4</sub>)<sub>2</sub>S
- 6.  $Zn(C_2H_3O_2)_2$

- 7. UF<sub>6</sub>
- 8. Ga<sub>2</sub>(SO<sub>3</sub>)<sub>3</sub>

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#### **Answers**

#### 1. PbSO<sub>4</sub>

Molar mass of PbSO<sub>4</sub> = Molar mass of Pb + Molar mass of S +  $(4 \times Molar mass of O) = 207.2 + 32.065 + 63.99 = 303.3 g/mol$ 

#### 2. AgF

Molar mass of AgF = Molar mass of Ag + Molar mass of F = 107.8 + 18.9 = 126.7 g/mol

#### 3. $C_6H_{12}O_6$

Molar mass of  $C_6H_{12}O_6 = (6 \times Molar mass of C) + (12 \times Molar mass of H) + (6 \times Molar mass of O) = 72.0642 + 12.09528 + 95.9964 = 180.15 g/mol$ 

#### 4. NaBr

Molar mass of NaBr = Molar mass of Na + Molar mass of Br = 22.989770 + 79.904 = 102.9 g/mol

### 5. (NH<sub>4</sub>)<sub>2</sub>S

Molar mass of  $(NH_4)_2S = (2 \times Molar mass of N) + (8 \times Molar mass of H) + Molar mass of S = 28.0134 + 8.06352 + 32.065 = 68.1 g/mol$ 

## 6. $Zn(C_2H_3O_2)_2$

Molar mass of  $Zn(C_2H_3O_2)_2$  = Molar mass of  $Zn + (4 \times Molar mass of C) + (6 \times Molar mass of H) + (4 \times Molar mass of O) = 65.409 + 48.04 + 6.047 + 63.99 = 183.48 g/mol$ 

#### 7. UF<sub>6</sub>

Molar mass of  $UF_6$  = Molar mass of  $U + (6 \times Molar mass of F) = 238.03 + 114 = 352.03 g/mol$ 

## 8. Ga<sub>2</sub>(SO<sub>3</sub>)<sub>3</sub>

Molar mass of  $Ga_2(SO_3)_3 = (2 \times Molar mass of Ga) + (3 \times Molar mass of S) + (9 \times Molar mass of O) = 139.44 + 96.21 + 144 = 379.65 g/mol$