

# Molar Mass Puzzle

The puzzle pieces contain the following information:

- Top row (left to right):
  - Triangle 1:  $\text{CaCl}_2$  (14.01 g/mol)
  - Triangle 2: H (105.99 g/mol)
  - Triangle 3:  $\text{Na}_2\text{CO}_3$  (98.09 g/mol)
  - Triangle 4: N (28.02 g/mol)
  - Triangle 5:  $\text{NaOH}$  (36.46 g/mol)
  - Triangle 6:  $\text{Ca}(\text{C}_2\text{H}_3\text{O}_2)_2$  (117.16 g/mol)
  - Triangle 7:  $\text{Al}(\text{OH})_3$  (62.03 g/mol)
  - Triangle 8:  $(\text{NH}_4)_2\text{SO}_4$  (35.46 g/mol)
- Second row (left to right):
  - Triangle 9:  $\text{K}_2\text{Cr}_2\text{O}_7$  (63.55 g/mol)
  - Triangle 10:  $\text{Ca}_3\text{N}_2$  (40.00 g/mol)
  - Triangle 11:  $\text{HCl}$  (34.02 g/mol)
  - Triangle 12:  $\text{Ba}(\text{NO}_3)_2$  (100.09 g/mol)
  - Triangle 13:  $\text{H}_2\text{O}_2$  (166.00 g/mol)
  - Triangle 14:  $\text{BeO}$  (68.17 g/mol)
  - Triangle 15:  $\text{BCl}_3$  (148.26 g/mol)
- Third row (left to right):
  - Triangle 16:  $\text{H}_2\text{CO}_3$  (65.39 g/mol)
  - Triangle 17:  $\text{H}_2\text{SO}_4$  (310.18 g/mol)
  - Triangle 18:  $\text{Li}_2\text{O}$  (74.10 g/mol)
  - Triangle 19:  $\text{H}_2\text{O}$  (18.02 g/mol)
  - Triangle 20:  $\text{CO}_2$  (158.04 g/mol)
  - Triangle 21:  $(\text{NH}_4)_2\text{S}$  (78.01 g/mol)
  - Triangle 22:  $\text{Ca}(\text{OH})_2$  (162.19 g/mol)
  - Triangle 23:  $\text{Cu}$  (29.88 g/mol)
  - Triangle 24:  $\text{Ca}_3(\text{PO}_4)_2$  (133.03 g/mol)
- Bottom row (left to right):
  - Triangle 25:  $\text{KMnO}_4$  (110.98 g/mol)
  - Triangle 26:  $\text{CaCO}_3$  (44.01 g/mol)
  - Triangle 27:  $\text{BeCl}_2$  (79.91 g/mol)
  - Triangle 28: Zn (158.18 g/mol)

**Directions:**  
 Complete the puzzle by cutting out the puzzle pieces and matching each element or compound with its corresponding molar mass.

# Molar Mass Puzzle

The puzzle pieces contain the following information:

- 110.98 g/mol,  $\text{KMnO}_4$
- 117.16 g/mol, Calcium acetate
- 74.10 g/mol,  $\text{H}_2\text{O}$
- $\text{CO}_2$ , 158.04 g/mol,  $(\text{NH}_4)_2\text{S}$
- 18.02 g/mol, NaOH, 28.02 g/mol, N
- 44.01 g/mol,  $\text{CaCO}_3$ , 63.55 g/mol, 132.17 g/mol, KI
- 40.00 g/mol, 1.01 g/mol, H, 105.99 g/mol
- Sodium carbonate, 98.09 g/mol,  $\text{FeCl}_3$ , 68.17 g/mol,  $\text{BCl}_3$
- 29.88 g/mol, Cu, 133.03 g/mol, 158.18 g/mol, 79.91 g/mol, Zn
- 166.00 g/mol, Beryllium oxide
- 310.18 g/mol, Sulfuric acid,  $\text{Li}_2\text{O}$ , 162.19 g/mol,  $\text{Ca}(\text{OH})_2$
- $\text{N}_2$ , 78.01 g/mol, 34.02 g/mol, Hydrochloric acid, 25.01 g/mol,  $\text{Ca}_3\text{N}_2$
- 148.26 g/mol, 65.39 g/mol,  $\text{H}_2\text{CO}_3$ , 62.03 g/mol, 36.46 g/mol
- 100.09 g/mol,  $\text{Al}(\text{OH})_3$ ,  $(\text{NH}_4)_2\text{SO}_4$ ,  $\text{Be}(\text{NO}_3)_2$ ,  $\text{H}_2\text{O}_2$
- 14.01 g/mol, Calcium chloride

**Directions:**  
Complete the puzzle by cutting out the puzzle pieces and matching each element or compound with its corresponding molar mass.

# Molar Mass Puzzle

65.39 g/mol  
Carbonic acid

68.17 g/mol  
 $\text{BCl}_3$

158.04 g/mol  
Ammonium sulfide

310.18 g/mol  
 $\text{H}_2\text{SO}_4$

18.02 g/mol  
Lithium oxide

117.16 g/mol  
 $\text{Ca}(\text{C}_2\text{H}_3\text{O}_2)_2$

110.98 g/mol  
Potassium permanganate

14.01 g/mol  
Calcium chloride

N  
Sodium hydroxide

28.02 g/mol

40.00 g/mol

158.18 g/mol  
Zn

79.91 g/mol

100.09 g/mol  
Beryllium nitrate

100.09 g/mol  
Beryllium chloride

$\text{H}_2\text{O}_2$

148.26 g/mol  
HCl

74.10 g/mol  
 $\text{CO}_2$

1.01 g/mol

44.01 g/mol  
 $\text{CaCO}_3$

34.02 g/mol

62.03 g/mol

36.46 g/mol  
 $(\text{NH}_4)_2\text{SO}_4$

162.19 g/mol

78.01 g/mol  
Aluminum hydroxide

62.03 g/mol

166.00 g/mol  
Beryllium oxide

$\text{N}_2$   
 $\text{Ca}(\text{OH})_2$

105.99 g/mol

29.88 g/mol  
Cu

133.03 g/mol

63.55 g/mol  
Potassium iodide

132.17 g/mol

Sodium carbonate

98.09 g/mol

25.01 g/mol  
Calcium nitride

Iron (III) chloride

**Directions:**  
Complete the puzzle by cutting out the puzzle pieces and matching each element or compound with its corresponding molar mass.