

Atomic mass and Molar mass

Practic Problems

$$\begin{aligned} \text{a) } 1 \times \text{P} &= 1 \times 30.97 \text{ g/mol} = 30.97 \text{ g/mol} \\ 3 \times \text{Cl} &= 3 \times 35.45 \text{ g/mol} = \underline{106.35 \text{ g/mol}} \\ &137.32 \text{ g/mol} \end{aligned}$$

$$\begin{aligned} \text{b) } \text{NaHCO}_3 \\ 1 \times \text{Na} &= 1 \times 22.99 \text{ g/mol} = 22.99 \text{ g/mol} \\ 1 \times \text{H} &= 1 \times 1.01 \text{ g/mol} = 1.01 \text{ g/mol} \\ 1 \times \text{C} &= 1 \times 12.01 \text{ g/mol} = 12.01 \text{ g/mol} \\ 3 \times \text{O} &= 3 \times 16.00 \text{ g/mol} = \underline{48.00 \text{ g/mol}} \\ &84.01 \text{ g/mol} \end{aligned}$$

$$\begin{aligned} \text{c) } \text{CHCl}_3 \\ 1 \times \text{C} &= 1 \times 12.01 \text{ g/mol} = 12.01 \text{ g/mol} \\ 1 \times \text{H} &= 1 \times 1.01 \text{ g/mol} = 1.01 \text{ g/mol} \\ 3 \times \text{Cl} &= 3 \times 35.45 \text{ g/mol} = \underline{106.35 \text{ g/mol}} \\ &119.37 \text{ g/mol} \end{aligned}$$

$$\begin{aligned} \text{d) } \text{Al}_2(\text{SO}_4)_3 \\ 2 \times \text{Al} &= 2 \times 26.98 \text{ g/mol} = 53.96 \text{ g/mol} \\ 3 \times \text{S} &= 3 \times 32.06 \text{ g/mol} = 96.18 \text{ g/mol} \\ 12 \times \text{O} &= 12 \times 16.00 \text{ g/mol} = \underline{192.00 \text{ g/mol}} \\ &342.14 \text{ g/mol} \end{aligned}$$

$$\begin{aligned} \text{e) } \text{Ca}_3(\text{BO}_3)_2 \\ 3 \times \text{Ca} &= 3 \times 40.08 \text{ g/mol} = 120.24 \text{ g/mol} \\ 2 \times \text{B} &= 2 \times 10.81 \text{ g/mol} = 21.62 \text{ g/mol} \\ 6 \times \text{O} &= 6 \times 16.00 \text{ g/mol} = \underline{96.00 \text{ g/mol}} \\ &237.86 \text{ g/mol} \end{aligned}$$