

(a) oxygen in aluminum nitrate

$$M(\text{Al}(\text{NO}_3)_3) = 213$$

$$w(\text{O}) = 9 \cdot 16 / 213 = 0.676 \text{ or } 67.6 \%$$

(b) carbon in  $\text{C}_2\text{H}_2$

$$M(\text{C}_2\text{H}_2) = 26$$

$$w(\text{C}) = 2 \cdot 12 / 26 = 0.923 \text{ or } 92.3 \%$$

(c) oxygen in  $\text{HC}_6\text{H}_7\text{O}_6$

$$M(\text{HC}_6\text{H}_7\text{O}_6) = 176$$

$$w(\text{O}) = 6 \cdot 16 / 176 = 0.545 \text{ or } 54.5 \%$$

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