

Name:  
Stoichiometry



a) When 620. **g** of Potassium chlorate decomposes, how many **moles** of KCl will be formed?

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=      mol KCl

b) How many **grams** of O<sub>2</sub> are produced from the decomposition of 2.85 **moles** of KClO<sub>3</sub>?

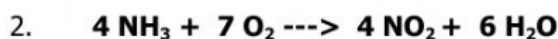
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=      g O<sub>2</sub>

c) If 3.54 **g** of oxygen was produced. What **mass** of potassium chlorate was used?

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=      g KClO<sub>3</sub>



a) What **mass** of NO<sub>2</sub> can be produced from 8.46 x 10<sup>22</sup> **molecules** of oxygen?

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=      g NO<sub>2</sub>

b) 23.7 **g** of NH<sub>3</sub> could produce how many **molecules** of H<sub>2</sub>O?

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=      H<sub>2</sub>O molecules

c) How many **moles** of NH<sub>3</sub> are needed to react with 95 **g** of oxygen?

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=      mol NH<sub>3</sub>

$$\frac{2 \text{ KClO}_3}{2 \text{ KCl}}$$

$$620. \text{ g KClO}_3$$

$$3.54 \text{ g O}_2$$

$$\frac{2 \text{ KCl}}{2 \text{ KClO}_3}$$

$$2.85 \text{ mol KClO}_3$$

$$\frac{122.55 \text{ g}}{1 \text{ mole}}$$

$$\frac{2 \text{ KCl}}{3 \text{ O}_2}$$

$$\frac{1 \text{ mole}}{122.55 \text{ g}}$$

$$\frac{3 \text{ O}_2}{2 \text{ KCl}}$$

$$\frac{32.00 \text{ g}}{1 \text{ mole}}$$

$$\frac{3 \text{ O}_2}{2 \text{ KClO}_3}$$

$$\frac{1 \text{ mole}}{32.00 \text{ g}}$$

$$\frac{2 \text{ KClO}_3}{3 \text{ O}_2}$$

$$\frac{74.55 \text{ g}}{1 \text{ mole}}$$

$$\frac{1 \text{ mole}}{74.55 \text{ g}}$$

$$8.46 \times 10^{22} \text{ molecules}$$

$$\frac{4 \text{ NH}_3}{7 \text{ O}_2}$$

$$6.022 \times 10^{23} \text{ molecules}$$

$$\frac{7 \text{ O}_2}{4 \text{ NH}_3}$$

$$\frac{1 \text{ mole}}{6.022 \times 10^{23} \text{ molecules}}$$

$$\frac{4 \text{ NO}_2}{7 \text{ O}_2}$$

$$95 \text{ g O}_2$$

$$\frac{6 \text{ H}_2\text{O}}{4 \text{ NH}_3}$$

$$23.7 \text{ g NH}_3$$

$$\frac{46.01 \text{ g}}{1 \text{ mole}}$$

$$\frac{4 \text{ NH}_3}{6 \text{ H}_2\text{O}}$$

$$\frac{1 \text{ mole}}{46.01 \text{ g}}$$

$$\frac{17.04 \text{ g}}{1 \text{ mole}}$$

$$\frac{32.00 \text{ g}}{1 \text{ mole}}$$

$$\frac{1 \text{ mole}}{17.04 \text{ g}}$$

$$\frac{1 \text{ mole}}{32.00 \text{ g}}$$

$$\frac{18.02 \text{ g}}{1 \text{ mole}}$$

$$\frac{1 \text{ mole}}{18.02 \text{ g}}$$