

Name:
Stoichiometry



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

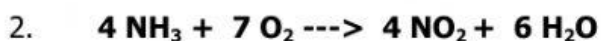
		= mol KCl
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b) How many **grams** of O₂ are produced from the decomposition of 2.85 **moles** of KClO₃?

		= g O ₂
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c) If 3.54 g of oxygen was produced. What **mass** of potassium chlorate was used?

		= g KClO ₃
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a) What **mass** of NO₂ can be produced from 8.46 x 10²² **molecules** of oxygen?

		= g NO ₂
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b) 23.7 g of NH₃ could produce how many **molecules** of H₂O?

		= H ₂ O molecules
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c) How many **moles** of NH₃ are needed to react with 95 g of oxygen?

		= mol NH ₃
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$$\frac{2 \text{ KClO}_3}{2 \text{ KCl}}$$

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

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

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

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

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

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

$$1 \text{ mole}$$

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

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

$$122.55 \text{ g}$$

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

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

$$1 \text{ mole}$$

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

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

$$32.00 \text{ g}$$

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

$$1 \text{ mole}$$

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

$$\frac{8.46 \times 10^{22} \text{ molecules}}{6.022 \times 10^{23} \text{ molecules}}$$

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

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

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

$$4 \text{ NH}_3$$

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

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

$$7 \text{ O}_2$$

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

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

$$4 \text{ NO}_2$$

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

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

$$4 \text{ NH}_3$$

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

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

$$6 \text{ H}_2\text{O}$$

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

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

$$1 \text{ mole}$$

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

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

$$17.04 \text{ g}$$

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

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

$$1 \text{ mole}$$

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