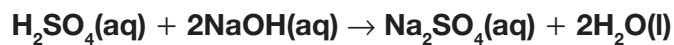


# Quantitative chemistry

## Moles in solution

**H 1** A scientist carries out a titration to find the concentration of some sulfuric acid. The scientist finds that  $25.00 \text{ cm}^3$  of  $0.0880 \text{ mol/dm}^3$  sodium hydroxide, NaOH, is neutralised by  $17.60 \text{ cm}^3$  of dilute sulfuric acid,  $\text{H}_2\text{SO}_4$ . The reaction is shown below:



**a Calculate the amount, in moles, of NaOH used.** (1 mark, ★★★)

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**b Calculate the amount, in moles, of  $\text{H}_2\text{SO}_4$  used.** (1 mark, ★★★)

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**c Calculate the concentration, in  $\text{mol/dm}^3$ , of the sulfuric acid.** (1 mark, ★★★)

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