## **Exercise 8**

- 1 11.2 g
- **2** 21.6 g
- 3 0.682 g of ethanoic acid and 0.523 g of ethanol
- **4** 143 tonnes
- **5** 14.5 g
- **6** 8.0 g of sodium hydroxide, 9.75 g of copper hydroxide
- $7 12000 \text{ cm}^3$
- **8** 54. 7 g of calcium nitrate, 8.0 dm<sup>3</sup> of carbon dioxide
- 9 6 dm³ total (4.8 dm³ of nitrogen dioxide and 1.2 dm³ of oxygen)
- 10  $Mg + H_2SO_4 + 7H_2O \rightarrow Mg SO_4.7H_2O + H_2$ 41.0 g
- 11 31.9 g
- **12** 324.3 g
- 5.11 g of ethanol, 2.67 dm<sup>3</sup> of carbon dioxide
- (i) 12.30 g of zinc hydroxide
  - (ii) 9.12 g of aluminium hydroxide
  - (iii) 9.67 g of magnesium hydroxide
- 15  $0.600 \, \mathrm{dm}^3$
- **16** 0.100 g
- 2.94 g of sodium chloride, 1.065 g of sodium chlorate(v)
- 4.15 x  $10^6$  dm<sup>3</sup> of nitrogen,  $12.5 \times 10^6$  dm<sup>3</sup> of hydrogen
- 19 63 tonnes of nitric acid,  $4.8 \times 10^7 \,\mathrm{dm}^3$  of oxygen
- 20 2198 g of calcium carbonate, 4.395 dm<sup>3</sup> of 10M HCl