

Worksheet: moles and stoichiometry

Typed version of the handwritten AS Chemistry worksheet by Fahad Hameed. The original handwritten page is on the same page of megalecture.com.

1. Find the mass of calcium nitrate and the volume of CO_2 gas formed when 200.0 g of calcium carbonate reacts with 1200.0 cm^3 of 0.250 mol/dm^3 nitric acid.
2. 200 cm^3 of ammonia gas reacts with 100 cm^3 of 0.15 mol/dm^3 phosphoric acid. Find the mass of ammonium phosphate formed.
3. 300 g of aluminium carbonate reacts with 200 cm^3 of 0.5 mol/dm^3 hydrochloric acid.
 1. Find the mass of aluminium chloride formed.
 2. Find the volume of CO_2 gas formed.
4. 10 g of Mg exactly neutralises 500 cm^3 of phosphoric acid.
 1. Find the concentration of the phosphoric acid.
 2. Find the mass of magnesium phosphate formed.
 3. Find the volume of hydrogen gas formed.
5. Find the mass of $\text{NH}_3(\text{g})$ formed when 300 cm^3 of $\text{N}_2(\text{g})$ and 500 cm^3 of $\text{H}_2(\text{g})$ react.
6. 3.0 g of iron(III) oxide and 500 cm^3 of carbon monoxide react. Carbon dioxide and Fe are the only products formed.
 1. Find the limiting reactant.
 2. Find the mass of iron formed.
 3. Find the volume of CO_2 gas formed.
7. 100 cm^3 of 2.5 mol/dm^3 calcium nitrate is added to 200 cm^3 of 1.5 mol/dm^3 sodium carbonate. Calculate the mass of precipitate formed.

Checked by Mega Lecture

This typed version follows the handwritten worksheet question for question. Only spelling was corrected. Spotted a mistake? Tell us on WhatsApp: +92 336 780 1123.

