Name:

Date:

Reacting Masses - 2

GCSE

CHEMISTRY

Mark

Grade

Materials

For this paper you must have:

- Ruler
- Pencil and Rubber
- Scientific calculator, which you are expected to use when appropriate

Instructions

- Answer all questions
- Answer questions in the space provided
- All working must be shown

Information

- The marks for the questions are shown in brackets

1. Calculate the mass of nitrogen that reacts with 30 g of hydrogen.

$$N_2 + 3H_2 \rightarrow 2NH_3$$

Answer:

2. Calculate the mass of fluorine that reacts with 3.9 g of potassium.

$$2K + F_2 \rightarrow 2KF$$

Answer:

3. What mass of chlorine reacts with 8.1 g of aluminum?

$$2Al + 3Cl_2 \rightarrow 2AlCl_3$$

Answer:

4. What mass of iron can be made from 20 kg of iron(III) oxide?

$$Fe_2O_3 + 3CO \rightarrow 2Fe + 3CO_2$$

Answer:

5. What mass of hydrogen is needed to react with 31.8 mg of copper(II) oxide?

$$CuO + H_2 \rightarrow Cu + H_2O$$

Answer:

6. Calculate the mass of calcium that can react with 40 g of oxygen.

$$2Ca + O_2 \rightarrow 2CaO$$

Answer:

7. Calculate the mass of oxygen needed to react 9.60 g of magnesium to form magnesium oxide.

$$2Mg + O_2 \rightarrow 2MgO$$

Answer:

8. What mass of ethanol could burn in 100 g of oxygen?

$$C_2H_5OH + 3O_2 \rightarrow 2CO_2 + 3H_2O$$

Answer:

9. What mass of hydrogen is formed when 2.00 g of magnesium reacts with sulfuric acid?

$$Mg + H_2SO_4 \rightarrow MgSO_4 + H_2$$

Answer:

10. What mass of aluminium reacts with 50.0 g of chlorine to form aluminium chloride?

$$2Al + 3Cl_2 \rightarrow 2AlCl_3$$

Answer: