Reacting masses - answers

1. A chemical reaction was carried out to convert 1.27g of copper oxide to copper metal using hydrogen gas. Calculate the mass of copper formed.

CuO + H2 Cu + H2O

1	0	<u>6</u>	g

2. A student burned 1.68g of magnesium in air. Calculate the mass of magnesium oxide formed.

2Mg + O2 2MgO

<u>2.78g</u>

3. Sodium hydrogen carbonate decomposes when heated. If 4.88g of sodium carbonate is formed calculate the mass of sodium hydrogen carbonate that was heated.

2NaHCO3 Na2CO3 + CO2 + H2O

<u>7.73g</u>

4. Calculate the mass of iron(III) chloride formed when 2.36g of iron is burned in chlorine gas.

2Fe + 3Cl2 2FeCl3

<u>6.85g</u>

5. A mixture of 5.74g iron and 2.28g sulfur reacted completely to form iron(II) sulphide. The iron was in excess.

Fe + S FeS

a. Calculate the mass of iron(II) sulphide that was formed.

<u>6.27g</u>

b. Calculate the mass of iron left over at the end of the reaction. **1.74g**