

If 6.15 g of N_2H_4 is used, what mass of water is produced?

[1] _____

2. 10.9 g of aluminum react with excess hydrochloric acid.

- Write the balanced equation for the reaction.
- What mass of hydrogen gas is produced?
- Classify this reaction as single or double displacement, decomposition, synthesis or combustion.

[2] _____

3. Potassium hydroxide decomposes into potassium oxide and water.

- Write the balanced equation for the reaction.
- What is the amount of water formed if 27.0 g of potassium hydroxide are used?

[3] _____

4. Barium hydroxide reacts with sulfuric acid.

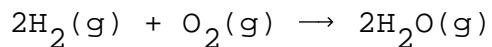
- Write the balanced equation for the reaction.
- What mass of barium hydroxide is needed to completely react with 7.79 g of sulfuric acid?
- Classify this reaction as single or double displacement, decomposition, synthesis, or combustion.

[4] _____

5. The actual amount of product produced in a reaction is 22.21 g, although a mass-mass calculation predicted 36.48 g. What is the percentage yield of this product?

[5] _____

6. Hydrogen burns in oxygen according to the following reaction:



What is the percentage yield if 8.43 g of oxygen react with hydrogen to produce 7.47 g of water?

[6] _____

7. 14.3 g of calcium carbonate reacts with hydrochloric acid. What mass of carbon dioxide is produced?

[7] _____

8. $\text{Na}_2\text{SiO}_3(\text{s}) + 8\text{HF}(\text{aq}) \rightarrow \text{H}_2\text{SiF}_6(\text{aq}) + 2\text{NaF}(\text{aq}) + 3\text{H}_2\text{O}(\text{l})$

If 23.8 g of Na_2SiO_3 is used, what mass of H_2O is produced?

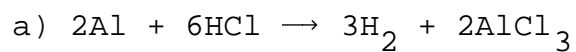
[8] _____

9. 11.3 g of C_3H_6 is burned in oxygen. What mass of oxygen was consumed?

[9] _____

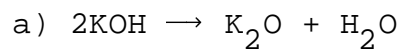
Key Sheet

[1] 6.92 g

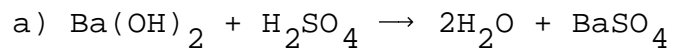


b) 1.22 g

[2] c) Single displacement



[3] b) 4.33 g



b) 13.6 g

[4] c) double displacement

[5] 60.88%

[6] 78.8%

[7] 6.29 g

[8] 10.5 g

[9] 38.7 g