Name : _____ Date : _____

Writing Chemical Equations

Write balanced chemical equations for the following reactions:

1. When sodium hydroxide reacts with sulfuric acid, sodium sulfate and water are formed.

2. When fluorine gas reacts with calcium metal, calcium fluoride powder is created.

3. Magnesium catches fire in the presence of oxygen to form magnesium oxide.

4. Silver reacts with the sulfur in the air and produces silver sulfide.

5. Nitrogen and hydrogen yield ammonia.

6. Iron and lead (II) sulfate react to form iron (II) sulfate and lead.

7. Tin (II) oxide and hydrogen gas combine to form tin and water.

8. Gases methane and oxygen react to form carbon dioxide and water.

9. Sodium combines with chlorine gas to form sodium chloride.

10. When potassium chlorate is heated, potassium chloride and oxygen result.

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Writing Chemical Equations

Answers

1. When sodium hydroxide reacts with sulfuric acid, sodium sulfate and water are formed.

$$2\ NaOH + H_2SO_4 \rightarrow Na_2SO_4 + 2\ H_2O$$

2. When fluorine gas reacts with calcium metal, calcium fluoride powder is created.

$$F_2 + Ca \rightarrow CaF_2$$

3. Magnesium catches fire in the presence of oxygen to form magnesium oxide.

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

4. Silver reacts with the sulfur in the air and produces silver sulfide.

$$2\ Ag + S \rightarrow Ag_2S$$

5. Nitrogen and hydrogen yield ammonia.

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

6. Iron and lead (II) sulfate react to form iron (II) sulfate and lead.

$$Fe + PbSO_4 \rightarrow FeSO_4 + Pb$$

7. Tin (II) oxide and hydrogen gas combine to form tin and water.

$$SnO + H_2 \rightarrow Sn + H_2O$$

8. Gases methane and oxygen react to form carbon dioxide and water.

$$CH_4 + 2\ O_2 \rightarrow CO_2 + 2\ H_2O$$

9. Sodium combines with chlorine gas to form sodium chloride.

$$Na + Cl_2 \rightarrow 2\ NaCl$$

10. When potassium chlorate is heated, potassium chloride and oxygen result.

$$2\ KClO_3 \rightarrow 2\ KCl + 3\ O_2$$