

### **Practice Problems I - Conservation of Mass**

1. If 50 grams of sodium reacts with chlorine to form 126 grams of salt. How many grams of chlorine reacted?
2. If 20 grams of aluminum reacts with 200 grams of bromide to form aluminum bromide, and no aluminum is left after the reaction, but 23 grams of bromine remained unreacted. How many grams of aluminum bromide were formed?
3. If 178.8 g of water is separated into hydrogen and oxygen gas, and the hydrogen gas has a mass of 20.0 g. What is the mass of the oxygen gas produced?
4. From a laboratory process, a student collects 28.0 g of hydrogen and 224.0 g of oxygen. How much water was originally involved in the process?
5. A student carefully placed 23.0 g of sodium in a reactor with an excess quantity of chlorine gas. When the reaction is complete, the student obtained 58 grams of salt. How many grams of sodium reacted?
6. A 10 gram sample of iron reacts with oxygen to form 18.2 grams of ferric oxide. How many grams of oxygen reacted?

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|----------|------------|----------|
| 1. 76 g  | 3. 158.8 g | 5. 35 g  |
| 2. 197 g | 4. 252 g   | 6. 8.2 g |

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