

Worksheet - Law of Definite Proportions

Name\_\_\_\_\_

Period\_\_\_\_\_

Date\_\_\_\_\_

Directions: SHOW ALL WORK!!!!

1. A 78.0 g sample of an unknown compound contains 12.4 g of hydrogen. What is the percent by mass of hydrogen in the compound?

2. If 1.0 g of hydrogen reacts completely with 19.0 g of fluoride. What is the mass of the compound formed? What is the percent by mass of hydrogen in the compound formed?

3. A 134.50 g sample of aspirin is made up of 6.03 g of hydrogen, 80.70 g of carbon, and 47.77 g of oxygen. What is the percent by mass of each element in aspirin?

4. A 2.89 g sample of sulfur reacts with 5.72 g of copper to form a black compound. What is the percentage composition of the compound?
5. Aluminum oxide has a composition of 52.9% aluminum and 47.1% oxygen by mass. If 16.4 g of aluminum reacts with oxygen to form aluminum oxide, what mass of oxygen reacts?
6. Two unknown compounds are tested. Compound I contains 15.0 g of hydrogen and 120.0 g of oxygen. Compound II contains 2.0 g of hydrogen and 32.0 g of oxygen. Are the compounds the same?

