

All That Glitters HW

Read and outline (Cornell style) **Section 3.2** in your Chemistry textbook. Then answer the following assessment questions:

1. Describe the results of a physical change and list 3 examples of physical changes.
2. Describe the results of chemical changes. List 4 indicators of chemical change.
3. Solve each of the following:
 - a. In the complete reaction of 22.99 g of sodium with 35.45 g of chlorine, what mass of sodium chloride is formed? Show your work. (Don't forget sig figs!)
 - b. A 12.2 g sample of X reacts with a sample of Y to form 78.9 g of XY. What is the mass of Y that reacted? Show your work. (Don't forget sig figs!)
4. Explain how placing a piece of metal in a graduated cylinder of water allows you to figure out the volume of that piece.
5. You have a piece of aluminum that occupies a volume of 30.0 mL and has a mass of 81.0 grams. What is its density? Show your work. (Don't forget sig figs!)
6. The density of mercury is 13.6 g/mL. If you have a sample of mercury with a mass of 306.0 grams, how many mL of mercury do you have? Show your work. (Don't forget sig figs!)
7. Archeologists discover a silver crown in an ancient tomb. When they place the crown in a tub of water it displaces 238.1 mL of water. The density of silver is 10.5 g/mL. Assuming the crown is really silver, how much does the crown weigh? Show your work. (Don't forget sig figs!)