

Preclass Assignment

CHEM 1090-General Chemistry I

Name:

#4

Section: 32, TR

Due Date: Tuesday 10/24/2017

1. You have a sample of 0.630 g of calcium.
 - a. Calculate the moles of calcium in the sample.

 - b. Now, assume that all of the calcium came from a tablet that contains only calcium citrate, $\text{Ca}_3(\text{C}_6\text{H}_5\text{O}_7)_2$. Calculate the moles of calcium citrate in the tablet based on the moles of calcium you calculated in the previous question. Hint- how many calciums are in calcium citrate?

 - c. Calculate the mass of calcium citrate in the tablet.

2. The copper ore malachite has the chemical formula $\text{Cu}_2(\text{CO}_3)(\text{OH})_2$.
 - a. Calculate the molar mass of malachite.

 - b. Calculate the mass of copper in 1.000 mole of malachite.

 - c. Calculate the mass percent of copper in malachite.