

These first three modules set the stage for the rest of the course. Bring in a problem that you have had a difficult time solving. It can be anything from homework, your book, or lab. You may bring in a quiz problem from Mod 1 up to and including Module 2. **DO NOT bring in a Mod 3 quiz question.** Any of the Module's Homework or book questions are allowed.

If you haven't had a difficult time with any question, post a question that is solved thoroughly. Provide an explanation so that someone who doesn't know where to start can follow along and understand the concept.

YOU ARE REQUIRED TO REPLY TO THIS DISCUSSION. Help someone solve a problem. Do not post "you did a good job, I got the same answer." Post helpful things. If you can't think of anything helpful to reply to, try to explain a concept in a different way. You cannot get credit for posting your initial then copying part of it as your reply.

Be sure to discuss **chemistry** and include collegiate level rigor in your discussion. This discussion will be graded for scientific merit.

- **You must post before you can see other's posts.**
Your initial post is due by Thursday.
- **You are also required to post one reply post.** Please avoid being congratulatory and keep the scientific conversation momentum going.

Each initial post should be unique.

Grading Rubric

Initial Post (15 pts)

- 10 pts Answer is thorough or work is attempted with an adequate explanation of the sticking point.
- 3 pts Question presented is complete
- 2 pts on time (-2 points if posted Friday; -5 if posted Saturday; -10 if posted Sunday)

Reply Post (10pts)

- 6 pts Scientific and meaningful
- 4 pts adequate length (min of 50 words. No "I agree" or "Good job." Congratulatory posts do not count.)

reply: to Steven Nghiem

Hello,

I struggled with module 1's quiz and found myself running out of time. I think I should have spent more time because I wasn't super confident in my comprehension of reading problems. Specifically, one question I had a hard time remembering how to complete and didn't solve was question 8.

"Copper exists in nature as a mixture of two isotopes, ^{63}Cu and ^{65}Cu . The ^{63}Cu isotope has a natural abundance of 69.16% and a mass of 62.930 amu. What is the mass of the ^{65}Cu isotope.

Upon researching this problem, I realized I was simply missing the difference between 100% and 69.16% to find ^{65}Cu 's mass.

I solved this problem using the following formula. $100\% - 69.16\% = 30.84\%$

$$(62.930 \times .6916) + (.3084^{65}\text{Cu}) = 63.546$$

$$(43.52) + (.3084^{65}\text{Cu}) = 63.546$$

$$.3084^{65}\text{Cu} = 20.02$$

$$^{65}\text{Cu} = 64.93\text{amu}$$