

POST TEST REVIEW QUESTIONS

You should start realizing that all the information we have learned since August can finally start getting put together! This question is meant to tie many many topics together. It is a good source of review but is also a good way to start seeing how you are expected to "connect the dots" and not just memorize single topics in isolation.

Directions: Answer the question(s). Label which topic each step is. Show any and all work possible. At the "Check Points" you can come check your answer. You will be told if it is right or wrong, but not why. You will have to work backwards to figure out what you got wrong so you can keep going!

Question: How many molecules of the unknown compound do you have?

#	Prompt	Topic(s)	Work/Answer
1	Which metal has the electron configuration of $1s^2 2s^2 2p^6 3s^2 3p^6 4s^1$		
2	Write the <u>compound</u> made from these two elements below (hint: find a, find b, then cross over!) a) The missing element from this equation: $^{235}_{92}\text{U} + ^1_0\text{n} \rightarrow ^{95}_{36}\text{Kr} + \text{_____}$ b) And a halogen with 45 neutrons		
Stop and check your answer to #2 with the teacher			
3	What type of reaction do you get when you react your answers from Q#1 and Q#2		
4	Predict your products from the reaction of your answers from Q#1 and Q#2		
5	Balance the equation that you wrote in Q#4		
6	Rank each of the <u>elements</u> in your products from the reaction that you balanced in Q#5 from smallest to largest atomic radius		
Stop and check your answer to #6 with the teacher			
7	Write a new <u>compound</u> by combining your largest radius element from Q#6 and the most electronegative element used in hydrogen bonding.		
8	What is the molar mass of this new compound from Q#7? Don't forget units! Use two decimal places.		
Stop and check your answer to #8 with the teacher			
9	If you have 50 grams of the compound from Q#7 how many moles of it do you have? Use dimensional analysis. Your answer should have three decimal places and units.		
10	Using your answer to Q#9, how many molecules of the compound do you have? Use dimensional analysis. Your answer should be in scientific notation and have units.		
Stop and check your final answer to #10 with the teacher			