

Chemistry 1B Active Learning
WebAssign Homework by Teamwork Activity
Week 1: Wednesday, 28th September

In chemistry courses perhaps the most **ACTIVE** way to fully engage the material is by doing quantitative and conceptual problems roughly labeled as 'HOMEWORK'. For part of today's class today you will join your teammates to discuss

HW#1 Problems 1-5. It would be helpful if as many of you as possible brought laptops to enable WebAssign login and calculators to do numerical computations.

The intent of homework by teamwork is that within your team you will **TEACH** others and **LEARN** from others (side benefit is getting HW done in-class to avoid late nights later !!)

Your team should:

1. Check to see if everyone understands what is being asked in the problem
2. Determine what formula is appropriate to obtain the requested value from the data given
3. Look to see if additional concepts are required (e.g. in HW#1 Prob1. "energy of Avogadro's number of photons").
4. Understand how to utilize the links found for some problems :

HELP:

Physical Constants

Constant	Symbol	Value
Atomic mass unit	amu	1.66054×10^{-27} kg
Avogadro's number	N_A	6.02214×10^{23} mol ⁻¹
Boltzmann's constant	k_B	1.38066×10^{-23} J K ⁻¹
Change of an electron	e	1.60218×10^{-19} C
Faraday's constant	F	96,485 C mol ⁻¹
Planck's constant	h	6.62607×10^{-34} J s



5. It is fine if your team wants to fully solve the problem and compare results. And if AS AN INDIVIDUAL you want to enter the result into WebAssign and have WebAssign check-it (see number of submissions). However the latter two steps must be done on an individual basis to count in your homework grade.
6. Your team should also discuss any implications of the results: 'what is the point that was being made by the problem'.
7. **EVEN THOUGH YOU WILL BE DOING THIS EXERCISE AS A TEAM, YOU MUST EACH END UP UNDERSTANDING THE PROBLEM AND BEING ABLE TO DO SIMILAR REASONING AND CALCULATIONS SOLO** (like you will have to on our upcoming midterms and final !!)