

Astronomy 596/496 APA, Fall 2015
Homework #1

Post your answers on Compass before next class: Wednesday, Sept 2

Science is a collaborative enterprise, and you are encouraged to discuss the class material and the problems with your classmates and the instructor. As always however, **you are responsible for your own answers, which you must understand and write up in your own words.**

1. *Welcome to Art and Practice!* Place your votes on the course direction!
 - (a) Please read the course syllabus. In it you will find a list of proposed topics in professional development. On the Homework section of the course Compass site, please list several of these which you particularly would like to discuss this semester.
Your answers will help prioritize which topics we cover in class.
 - (b) Any other topics and/or issues you would like to discuss? Any other comments? Post your answers on the course Compass site.

2. *Order-of-Magnitude Estimates.* In class we discussed a variant of the famous Fermi Problem: our mission is to estimate the number N_p of pizzerias (pizza restaurants) in Chicagoland (i.e., the greater Chicago metropolitan area).

Post your answers on the course Compass site. Scans or legible photos are fine.

- (a) Method 1: guessing. Give your “gut feeling” guess for N_p . Rely on your intuition only: do this without calculations or consulting classmates or the internet.
- (b) Method 2: Estimate N_p via some sort of calculation. Show your work. Do not consult the internet.
Compare with your answer from part (a), and comment.
- (c) Use the internet to gather data on N_p . Cite your source(s), i.e., give the URL.
Compare with your answers from parts (a) and (b), and comment.