

Homework Assignment Number Five

Read these instructions carefully.

Follow these steps to do the homework:

- (1) Go to http://clausius.engr.utk.edu/che301/webhw/choose_action.html and print out a version of the homework. This will require your student id and assign you a unique homework set.
- (2) Work the homework problems as you usually would.
- (3) When you are finished and you have the answers, submit them back to http://clausius.engr.utk.edu/che301/webhw/choose_action.html

Notes:

- (a) The numbers in your homework will be different than everyone else's homework.
- (b) No work will be turned into class. All work must be turned into the web-page by the deadline.
- (c) The grading scale for this assignment is 1 point for each correct answer and 0 points for each incorrect answer.
- (d) If you experience technical difficulties with this site, please email the instructor.
- (e) You can only submit your solutions once so make sure you have all the problems done before you submit your work. Warning: On Microsoft Internet Explorer, hitting the "enter" key is equivalent to hitting the "submit" button. So don't hit "enter" until you are done with all of the problems. On Netscape, this is not a problem.
- (f) If you disagree with the solutions, print out the web page that appears after you have submitted your solutions (which contains both your answers and the correct solutions), and bring that paper to my office hours.
- (g) When entering numbers in the web, you have two choices. You can enter the number as a fixed decimal figure or in exponential format. For example, 0.01 can be entered as 0.01 or as $1.0e-2$. You **cannot** enter fractions in the web; 0.01 **cannot** be entered as $1/100$.
- (h) Each problem has a specified acceptable deviation. For example, if the answer to the problem is 5432.1 and the acceptable deviation is 1% then we have:
$$0.01 * 5432.1 = 54.321$$
$$\text{maximum acceptable answer} = 5432.1 + 54.321 = 5486.421$$
$$\text{minimum acceptable answer} = 5432.1 - 54.321 = 5377.779$$
This means that an answer of 5400 or $5.4e+3$ would be judged correct because it falls within the interval of the minimum and maximum acceptable solution. An answer of 5000 or $5.0e+3$ would be judged incorrect because it does not fall within the acceptable interval.
- (i) The EXCEL var function is *not* the population variance.
- (j) If you want more significant figures out of MATLAB, use the "format long" command.