

Independent Mathematical Contractors  
Any College  
1 Your Street  
City, State 00000

Dear IMC:

Each semester I have a difficult time encouraging students to complete assignments. I tell students that by completing the assignments, you are applying the concepts in the class and this will help you to do better on the final exam. Despite my best arguments, some students refuse to do much homework.

In this project I am giving you the opportunity to decide for yourself whether the assignments are worthwhile. The table to the right contains some grade statistics from my finite math class during the spring of 2006. Each row corresponds to a different student in the class. The first column describes the assignment average in percent for each student. The second column describes the corresponding percentage on the final exam.

Based on this table, I want you to decide if doing assignments is a worthwhile endeavor. To help you answer this question, I anticipate that you'll need to complete the tasks below:

1. Create a scatter plot of the data to the right.
2. Find a linear function corresponding to this scatter plot based on linear regression.
3. Interpret what the slope of this linear function means.
4. Pick a realistic value for the assignment percentage that you think you can attain. Based on your linear function, what will you get on the final exam?
5. Pick a realistic goal for your final exam percentage. Based on your linear function, what will you need to get on the assignments to reach this goal?
6. Based on the linear function, what is the very best any student can expect to do on the final exam?

Assignment %	Final %
98	71
86	88
92	85
98	91
10	66
81	82
80	58
0	65
68	77
47	70
65	79
46	72
95	92
69	83
72	64
84	83
79	51
81	67
62	69
52	73

Once you have completed these tasks, you'll need to document the process you used to reach your answer in a technical memo. This memo is due to me on February 25. Feel free to discuss the process among yourselves, but make sure that the technical memo you turn in is your own work.

If you are unclear on what is expected in your technical memo, contact me via email or by phone.

Dr. David Graser  
Yavapai College