

Group Project Rules and Encouragement

First, this is a major, lengthy assignment. You should start today and work on it some every day until you complete the project. Your paper will be due at the start of class on April 20, 2007.

1. If you have not already done so decide who will be in your group and plan to meet as a group today or tomorrow. Groups should have at least two students and no more than five students.
2. Start today. If you have the problem well in mind, your subconscious will work for you. You may find that good ideas will come to you at the strangest times.
3. Today, start by reading the entire project so you can see what the big picture is. Don't worry about details at first. Do this before the group meets so everyone has the overall picture in mind. You should probably discuss the project to be sure everyone has it well in mind and everyone agrees what the project is saying.
4. As a group organize how the project will be carried out. You may wish to work together or you may wish to divide the work up and each work separately. This is your group's project, so as a group you should decide how to do things.
5. Next read the project in detail. Begin to think about the details you are to work out. At first it should go smoothly, but at some point you may hit a snag. At that point you will zero in on the obstacles. You are then becoming the master of your project. Keep thinking about the obstacles. You will have them well enough in mind that you will be able to work on the problems any time you have a spare minute or two. You may wish to keep a journal to record your progress every day.
6. You are to work as a group. You should discuss your progress as a group and help each other through the tough spots. You may discuss your progress on the project in general terms with friends outside your group, but do **not** give hints or help to other groups. Your group is not alone in this project. If you hit a snag and put substantial effort into the project with no progress, **one person** from your group should go to your teacher's office and ask for a hint. Even if things are going well it may not be a bad idea to discuss what you are doing with your teacher just to be sure you are on the right track. During each visit, you may ask only one question and the total time on the question may be limited if there are others waiting. Please carefully organized your thoughts before you ask the question in order to minimize the time it takes to get a satisfactory answer. Only one person from the group is to go to your teacher's office at a time. That person will then be responsible to communicate to the others in the group what was said. One of the objectives of a group project is to give you practice in communicating mathematical ideas to others, so if your group seeks help more than once take turns going to your teacher's office.
7. **Do not go to anyone but your teacher for help on the project.**
8. When you have completed the work on the project it is time to prepare it in written form. Your paper should be a mix of equations, formulas, graphs, and prose to support your conclusions. Use complete sentences, good grammar and correct punctuation. Spelling is also important. The prose is written to convey to the reader an explanation of what you have done. It should be written in such a way that a typical calculus student would be able to understand it. You will be graded on your written presentation as well as the mathematical content. Be sure each member of the group understands everything that was done on the project. You may have to meet a few times after the report is written to be sure everyone knows all the details.
9. After you have completed the project think about how much work each member of your group did on the project. Every member of your group is to turn in a confidential estimate of what percent of the project was done by each member. Also, for some of the groups a grade may not be assigned until after an interview with your teacher. Your individual grade will be determined by the written project, what percent of the project you did, and in certain cases the interview. In most cases the letter grade for each member of the group should be the same.

Good luck. **Now start the project!**