## SUGGESTIONS FOR WORKING IN GROUPS:

Group assignments can be difficult: you have to find a time when you can meet, and you lose some degree of control over the final product. Explaining ideas that are not yet fully formed is hard, and so is understanding the way other people talk about math. So why do I make require group assignments? First off, because this is how most work in the real world is done and all of those difficulties will exist in your careers as well. Secondly, the efforts you put into explaining your thoughts to others and working to understand their thoughts is not wasted – lots of studies show you learn more by talking and thinking with other people, benefiting from other people's way of looking at the problems.

Start thinking about the problems before meeting, so that you bring different ideas to the table.

Groups work especially well when everyone recognizes the importance of different ways of thinking, the value of group members' productive struggling with the material, and that everyone brings different strengths to the discussion. It can be helpful for each member of the group to take some specific roles within the group. Some suggested roles to divide up between you with each taking on more than one:

- Facilitator: Makes sure objectives are met. Manages discussion (ensuring everyone is participating and contributing) by asking those who are already speaking to explain what they are saying, and those who are not what they think, what is causing confusion
- Connector: Makes connections between what different people in the group think and say
- Skeptic: Questions the process, collects and raises objections and alternative approaches, identifies what could go wrong
- $\bullet$  Librarian: Finds and collects appropriate resources
- Scribe: Keeps track of questions that arise, and of the solution process your group decides on
- *Illustrator:* Drawing diagrams, table, or other illustrations to illustrate ideas
- Author: Write up the final version of the problem set to be turned in

IF YOU DO NOT PARTICIPATE IN A GROUP'S SOLUTION, YOU ARE NOT IN THAT GROUP: Just because you agreed to form a group doesn't guarantee that your name will go on the solutions: you must participate.

IF YOU ARE GOING TO BE UNABLE TO FULLY PARTICIPATE WITH YOUR GROUP: Let them and me know. If you're not going to be able to participate at all, I will suggest you do the problem set individually that week

IF WORKING IN GROUPS AT ALL IS GOING TO BE A MAJOR PROBLEM FOR YOU: Let me know – we'll see what we can work out

Your final homework score will depend on your contribution – for each group problem set, you will assess your own and all your group members' efforts. These scores will be used to create a multiplier for your group homework score. For instance, if your group rating is an average of 9.0 or higher, then your group homework score will be multiplied by 1, but if your group rating is an average of 8.0 or higher, then your group homework score will be multiplied by 0.9.