

GUIDELINES FOR TEAM HOMEWORK

(from The University of Michigan)

Successful teams meet at least twice during the week. Before the first meeting, *try to get as far as you can individually on each of the problems in the set*. The major amount of the work should be accomplished at the first meeting. Each person on the team should come to the first meeting having worked hard on each problem--with some questions to ask others in the group.

Each group should choose a “**Scribe**” and a “**Reporter**”. These positions will rotate!

Before the second meeting, the Scribe should write a rough draft of the homework. During this meeting, the team should help to refine the draft so that the finished problems will be polished and an acceptable final product for the group.

When the homework is due, one set of the solutions (typed is preferable) should be submitted at the specified due date. The solutions should be written by the Scribe, and accompanied by a cover sheet written by the Reporter. Both the solutions and the cover sheet should be neat, legible, and with attention to correct English. No late or partial solution sets will be accepted.

The reporter's cover sheet should list each person's role and include: (1) Dates, times, and location of your meetings; (2) Each member's participation (you may give names or not, as you choose); (3) Comments on how the group worked together; (4) Comments you may want to include regarding the course or assignment in general.

Scribes should **write up the solutions as if other students were the audience**. Pretend you are explaining your thinking to another student who had to miss class. Start each solution with a paraphrasing of the problem (e.g. "We are to find..."). Define your variables and functions precisely (with units where appropriate), and write the algebra and precalculus in complete (mathematical) sentences. Include neat, clearly labeled graphs whenever you possibly can, even if the problem does not specifically ask for them. Finally, think back on the main idea of the problem and state a summary of your conclusions.

HOW TO WRITE MATHEMATICS

Writing Mathematics is a key part of a good calculus course.

Each team problem requires considerable thought and a complete, well-written solution. Your team earns grades as a whole, so everyone in a team is responsible for each other's learning of the material.

Each final submitted solution is expected to be written in the style of rigorous mathematics. In this style of presentation, the quality of explanation and interpretation is at least as important as the numerical answers. Writing solutions in this manner is often difficult for students unfamiliar with this style of presentation. Unfortunately, most incoming college students have a mathematical background where correct numerical answers were the sole criteria for quality.

There is no formula for good mathematical writing just as there is no formula for writing a good paper. This is a skill you develop with time. However, there are several characteristics of good mathematics writing that should always be addressed. The most important four are:

1. Begin with a restatement of the question
2. Include computations with explanations
3. Provide figures, graphs, tables, etc. whenever appropriate
4. End with a clear, concise conclusion.