

HOMEWORK COLLABORATION IN MATHEMATICS: GUIDELINES FOR STUDENTS

HAVERFORD COLLEGE DEPARTMENT OF MATHEMATICS AND STATISTICS

Math professors at Haverford often encourage *collaboration* on homework assignments. However, students are sometimes confused about exactly what this means, especially as it concerns their obligations under the Honor Code. The Department would like to clarify what we typically mean by “collaboration on homework” and give general guidelines about how to collaborate appropriately.

First of all, the *primary purpose* of allowing collaboration on homework is to facilitate the process whereby students learn from each other in a non-classroom setting. Students often learn best when they are actively engaged in the process of communicating about the material. Thus, study groups and visits to the MQC play a valuable— even crucial— role in the learning experience for students in most math courses. The department wants to support and encourage these activities.

Nonetheless there are some *dangers*. As mature learners, students need to take responsibility and ensure that each collaboration is really helping them to learn; if students become inactive participants and depend too heavily on the help of others, they may not learn the material adequately, and may eventually perform poorly on tests. Moreover, in extreme cases, inappropriate collaboration may escalate into situations that require the attention of Honor Council.

Below are general principles for appropriate collaboration that should apply in most situations. Individual professors may add or subtract from these principles. As with all situations involving the Honor Code, it is ultimately the student’s responsibility to seek clarification if any ambiguities remain.

GENERAL PRINCIPLES FOR COLLABORATION

1. Any use of *other peoples’ ideas or words* should be acknowledged. Absence of acknowledgment constitutes your representation to us that the ideas and words are yours and yours alone.¹ Failure to acknowledge properly constitutes plagiarism.
2. If you collaborate on a homework problem, you are probably exchanging ideas, and you should *acknowledge your collaboration*. Most professors will ask you to make an annotation on each problem (since your collaborators may change from problem to problem). You should not hesitate to do this. We will not think less of you: remember that we have encouraged you to collaborate.
3. If you obtain *material from a published source or the web*, you should acknowledge the use of this material. Copying directly from such sources without attribution is as inappropriate as copying directly from another student’s paper. Some professors may restrict your use of outside materials, others may not; however, acknowledgment is required in every case.
3. If you collaborate on a homework problem, it may seem efficient to share your papers and submit essentially similar solutions. Resist this impulse! *Do not share your papers!* Most professors strictly forbid it. Once you have discussed and understood the solution, you and your partners should *write up solutions separately*.² This last step is an essential part of the learning experience.

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¹Paraphrased from the Haverford Honor Code.

²Some professors may ask you to write up your solutions in different rooms.

4. Here is a way to check that you have been collaborating appropriately: *if you follow our guidelines correctly, your paper and the paper of your collaborator should not “look” the same.* The papers should (of course) not be verbatim copies— direct copying is strictly forbidden. In addition, there should not be direct transcriptions of information received orally. There should not be fragments of common text, repeated verbatim. There should not be overwhelming agreement in expository structure. Despite what some people might think, such similarities almost never occur when two students are writing their solutions “at a distance”.
5. Some additional effort may be required, after collaboration, to make the papers you submit “your own”. *We are asking you to make this effort.* Again, this is an essential part of the learning experience.
6. *Substantial agreement between papers, verbatim or otherwise, will be construed as evidence of inappropriate collaboration.* In cases where deception does not seem to be the primary intent, professors will usually issue warnings. However, we expect that all students will eventually acquire the skills we are outlining here. Repeated or flagrant violation will result in a confrontation under the Honor Code.
7. You should pay careful attention to any *additional guidelines* that professors may add to this list.
8. Finally, remember that *we want you to collaborate.* If you find these instructions ambiguous or difficult to interpret, don’t hesitate to ask your professor for additional guidance.