Center for Writing and Speaking

F NO. 6 IN THE CENTER FOR WRITING AND SPEAKING HANDOUT SERIES

Writing in Math

Writing is as important in math as it is in any other discipline. Symbols are the tools mathematicians use to describe ideas, but words are necessary to explain the context and to interpret the results of a problem in real-world terms.

Stick with the general conventions of writing.
Use the same writing skills you would use in any other discipline. Write in complete sentences and paragraphs following grammar and language conventions. Avoid vagueness, and do not use more words than necessary. Most important of all, writing in mathematics requires use of the language of mathematics. Note how the author of your math text moves from explanation in words to development in mathematical symbols.

Introduce the problem.
Solving a mathematical problem requires that you first restate the problem, then state your objective. What are you trying to do? For example, "Our objective is to find the height of the building." Restating the problem and stating the objective combine to form your opening paragraph. Clarify your assumptions and constraints, and specify units of the variables and numbers you are using.

Explain your approach.
No two people need approach a mathematical problem in the same way. Make sure that you explain adequately which approach you are taking, so there is no confusion. Introduce and describe each variable as precisely as possible. Use mathematical symbols clearly. For example, "x equals height" is unnecessary and incomplete; "x = height of the building in meters" is better.

Label all visual aids.
Label diagrams, tables, graphs, etc. If you are using a graph, make sure that you have labeled your axes correctly, including units of measure.

Organize.
Your writing should have a logical flow, allowing your reader to follow you as you solve the problem. Write your solution to the problem in the same way you would answer it mathematically: step by step, goal in sight.

Solve the problem.
Do not just solve the problem mathematically. Restate your answer in words so that someone less familiar with the situation could understand your solution. This is your closing paragraph. Here, try to use broader, real-world terms if possible. For example, rather than just writing "x = 27," you should clarify your answer by writing, "The height of the building is 27 meters."