Guidelines to Write a Mathematical Paper:

1.The title:

Your paper should have a **short** and **informative** title.

2. The abstract:

Describe in general terms what the paper is about, state clearly the main result of your paper. Try to avoid technical terms and too many symbols.

3. Preliminaries:

list your **key** words and symbols, explain each, but you don't have to list everything all at once. Your paper will be friendlier if you **weave** the information into the text as needed. Tell about the history of the results you will be presenting, how, what you are interested fits into the general theory, and explain why it is interesting to look at your problem.

4. Main results:

Divide your results into sections with informative titles. Introduce one idea at a time, use "**Propositions**" "**Lemmas**" to get your theorems. After the theorems list any relevant "**corollary**".

5. References:

The purpose of the references to inform the readers to the existence of books and articles that relates to your paper. Follow American Mathematical Society (AMS) standards in giving references. This list should also contain all the sources containing the proofs of the results that you stated but not proved in your paper.

Guidelines for Class Presentations:

1. The Introduction:

Describe in general terms what your presentation is about. Do this in a way that entices the listeners. Settle for a rough statement in words instead of symbols and technical words.

2. Key Words, Notation:

Review a few key definitions that might not be well known-with references. Set your notation. List every symbol you will be using. (You can do with fewer than you think, try not to introduce too many symbols)

3. State your Theorem First, Prove Second :

State your theorem clearly, point out the assumptions and the conclusion. It is often useful to illustrate the theorem before proving it. Tell in advance the "main elements" in the proof.
Strive for proofs that are conceptional rather than computational, the way you would describe the result to a fellow student during a walk across the campus. Use pictures in proofs, cite supporting reasons informatively.

4. Perspective:

Explain how the theorem you just presented fits into the other theorems that we have been discussing. Discuss generalizations and limitations of the theorem. Give an application of the theorem.

5. References:

During your presentation, you do not need to give references for well known results, for example you can just say " By the Fundamental Theorem of Calculus" or "By the Triangle Inequality" But if the result is relatively unfamiliar, include a citation.

6. Ask for questions:

During tour presentations and after you are done, ask if you need to clarify your proof. Keep in mind the listener's interest at all times.