

How to Debug and Then Ask for Help

Problem solving is an **IMPORTANT** part of programming and a skill you **MUST** learn. Try to debug the problem on your own first. This will help you gain as much information about the problem even if you are still unable to solve it. This information will greatly assist you and the person you are asking for help.

Steps for debugging a problem:

1. Look at the problem and ask yourself:
 - a. What is it doing?
 - b. Why would it be doing that?
 - c. Where would it be doing that? (in the code)
2. Insert code to help output helpful information while the program is running.
3. Put breakpoints (for example, print statements) around the suspected area of code to step through the process.
4. Disable some of the code's functionality to narrow down where the problem could be occurring.
5. Try some potential solutions on your own.

If you are still unable to solve the problem, ask others for help by:

1. Describing the purpose of the particular code and what problem you are experiencing - What is it doing exactly? (Be very specific, when, where, etc.) You should know this information since you tried debugging it already.
2. Explain why you think the problem is happening?
3. Explain what you tried, and what the outcome was.

This will help you understand your code much better and minimize future problems that are similar in nature.