Good Programming Practices

Official Python Style Guide: https://www.python.org/dev/peps/pep-0008/

Organizing Your Code

When you write code, it should follow this order. Not following this order can lead to errors and will make your code less readable for yourself and others.

import lines - things like **import math**, or **from graphics import ***
Classes - these should be the first real things in your code.
Functions

Then, after those three types of things, you should put the main chunk of your code. The only things that actually run are the things that are called by the main chunk of code, so it's good to keep those lines all together.

Indentation

Indentation matters! If something belongs to something above it, it should be indented. All of the methods for a class should be indented one level beneath the class declaration, things inside a loop should be indented one level underneath it, and so on. Make sure you check indentation if things aren't going as expected.

Commenting

Remember at the beginning of class, when we learned about comments, we said they would be a good way to describe what was happening in your code? For the final project, we want you to write comments for everything. It's good practice to do so.

Descriptive Naming

When you name variables, make sure you're as specific and accurate as possible. Names can be short, but not too short – one letter variable names aren't going to be very useful if you look at your code several months later. Names should be appropriate, too – if you're talking about an integer, don't call it "name".

Reading Error Messages

When you're debugging things and you get an error message, read it very clearly. Error messages will tell you what line the problem is on, and what the error is. Sometimes the error will appear at the very beginning of a line – this may mean that the error is on the previous line. You may have forgotten the colon or have mismatched parentheses, for instance.