So your code doesn’t work
Now what?
Basic Debugging
Think before you change your code
Be a scientist

1. Observe
2. Develop a hypothesis about what is wrong
3. Come up with a change to test that hypothesis
4. Make that change (and no others)
5. Determine if it produces the expected result
6. If so – great
7. If not
   - Did it fix a different problem?
     - If so – keep the change and develop a new hypothesis
     - If not – reverse the change and develop a new hypothesis
1. Do not change more than one thing at a time

2. Do not change something without a reason
Observation

1. Read the error message
2. Talk through your code
3. Observe what your code is doing
Read the error message

NameError: name 'y' is not defined

File “C:\path\to\buggy_file.py”, line 10,
in <module>
Talk through your code

- What is your code actually doing – in words?
- Is that what it should be doing?
Get more information

- What are do the variables look like as your code is running?

- Amateur
  - Print statements

- Professional
  - Debugger