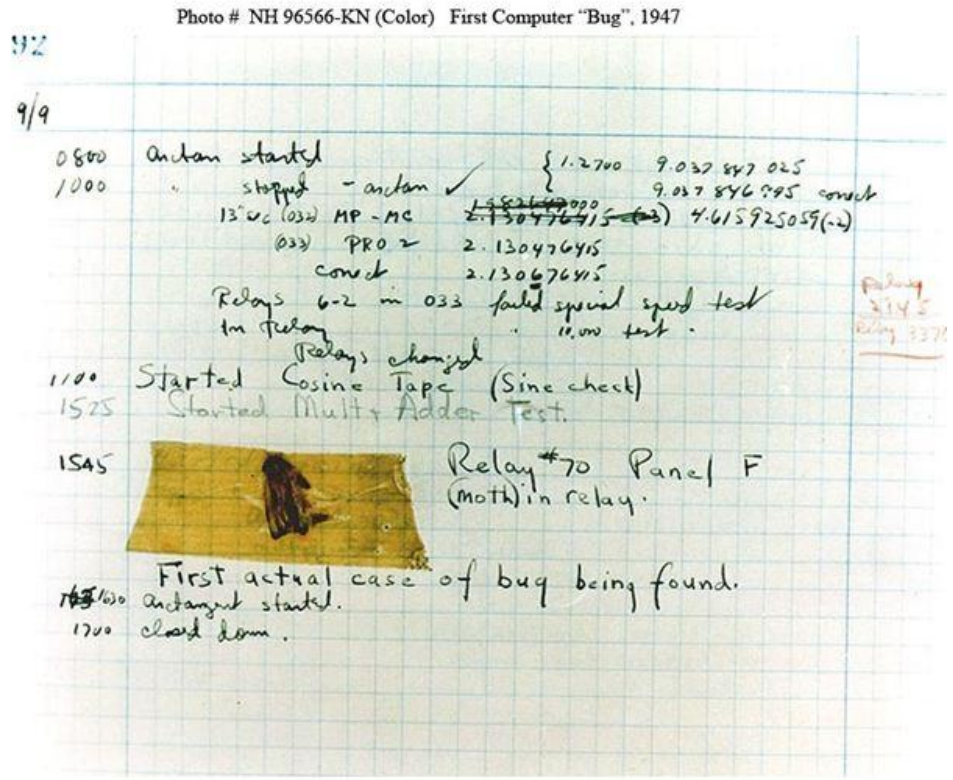
Debugging

...literally



Lingo

Removing bugs is the process of debugging.

The tool you use is (unsurprisingly) a debugger.

Idle, to the rescue

Open idle, go to Debug -> Debugger

The interpreter will say [DEBUG ON]

Now, any file you run or command you type into the interpreter will go through the debugger. You will need to hit "Go" to make Python start running that command.

Check the four debugger checkboxes.

Breakpoints

Typically, you want to investigate the state of your program on a given line of code. The debugger will automatically stop just before executing any line with a breakpoint.

In Idle, when editing a file (not just in the interpreter), you can right click on a line and select "Set Breakpoint". The line will highlight in yellow.

Step, Over, Out

Step: Steps to the next line. If there is a function call, step into it.

Over: Steps to the next line "over" (i.e. ignoring) any function calls.

Out: Steps out of the current function and back to the line that called it.