CS1400

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Exercise #1

1) Shell: the shell is where you are able to type in commands and get feedback, etc. It is usually at the bottom of the screen below the editor.

   Editor: This is the area where you are able to input your actual code, comments etc. It contains the information to be processed and interpreted/compiled to machine code.

2)

a) printed: Hello, world!

b) printed: Hello world!

c) printed: 3

d) printed: 3.0

e) printed: 5

f) printed: 5.0

g) printed: 23

h) printed: 2 + 3 = 5

i) printed: 6

j) printed: 8

k) printed: 2.3333333333333335

l) printed: 2

3) running the program gave me random numbers $0 < x < 1$; when x = .26 or .25 the numbers were more consistently on the higher end, closer to 1 and less likely below 0.5.

4)

1) algorithm: a set of commands or instructions that will, if followed provide a correct solution every time that it is run.

2) compiler: a compiler will take the desired code and then translate it into the machine code for the user, which, eventually should execute a program. Compilers run all of the program at once, without any pauses while doing so.

3) Interpreter: similar to the compiler, however instead of running all of the code in an instance, it reads little by little, chunk by chunk, then goes onto another amount.

4) high-level language: languages like python, that are relatively easier to work with for users and that need to be translated into a machine code in order to run the program.