

1.E: INTRODUCTION (EXERCISES)



Contributed by [Chuck Severance](#)
Clinical Associate Professor (School of Information) at [University of Michigan](#)

Exercise 1: What is the function of the secondary memory in a computer?

- a) Execute all of the computation and logic of the program
- b) Retrieve web pages over the Internet
- c) Store information for the long term, even beyond a power cycle
- d) Take input from the user

Exercise 2: What is a program?

Exercise 3: What is the difference between a compiler and an interpreter?

Exercise 4: Which of the following contains "machine code"?

- a) The Python interpreter
- b) The keyboard
- c) Python source file
- d) A word processing document

Exercise 5: What is wrong with the following code:

```
>>> print 'Hello world!'
File "<stdin>", line 1
    print 'Hello world!'
          ^
SyntaxError: invalid syntax
>>>
```

Exercise 6: Where in the computer is a variable such as "x" stored after the following Python line finishes?

```
x = 123
```

- a) Central processing unit
- b) Main Memory
- c) Secondary Memory
- d) Input Devices
- e) Output Devices

Exercise 7: What will the following program print out:

```
x = 43
x = x + 1
print(x)
```

- a) 43
- b) 44
- c) x + 1
- d) Error because $x = x + 1$ is not possible mathematically

Exercise 8: Explain each of the following using an example of a human capability: (1) Central processing unit, (2) Main Memory, (3) Secondary Memory, (4) Input Device, and (5) Output Device. For example, "What is the human equivalent to a Central Processing Unit"?

Exercise 9: How do you fix a "Syntax Error"?

1. <http://xkcd.com/231/>↔