Exercises 3

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5/5 points (graded)

ESTIMATED TIME TO COMPLETE: 5 minutes
Note that you will have to answer all questions before you can click the Check button.

1. True or False? A stored program computer is designed to compute precisely one computation, such as a square root, or the trajectory of a missile.

- ○ True
- ◉ False

✔

2. True or False? A fixed program computer is designed to run any computation, by interpreting a sequence of program instructions that are read into it.

- ○ True
- ◉ False

✔

3. A program counter

- ○ counts the number of primitive operations executed by the program.
- ○ counts the number of primitive operations comprising a complex operation.
- ◉ points the computer to the next instruction to execute in the program.
- ○ remembers how many times a program has been executed.

✔

4. What does it mean when we say that "the computer walks through the sequence executing some computation"?

- ○ The computer tests each instruction to ensure it will not harm the circuitry.
- ○ The computer executes the instructions in strict, linear sequence, just like walking in a straight line.
- ◉ The computer executes the instructions mostly in a linear sequence, except sometimes it jumps to a different place in the sequence.
- ○ The computer slowly executes instructions so that we can follow its progress, rather than running a program at full speed.

✔

5. True or False? In order to compute everything that is computable, every computer must be able to handle the sixteen most primitive operations.

- ○ True
- ◉ False

✔