1. What is a computer program? **1 point**

- ○ A file that gets printed by the Python interpreter.
- ○ The syntax and semantics of a programming language.
- ○ The overview of what the computer will have to do to solve an automation problem.
- ◉ Step-by-step instructions on how to complete a set of tasks, to be executed by a computer.

2. Which of the following are true about programming languages? Select all that apply. **1 point**

- ☑ Similar to human language, programming languages use syntax and semantics.
- ☑ Programming languages are used to write computer programs and scripts.
- ☐ Programming languages is a synonym for pseudocode.
- ☑ Some common programming languages include Python, Java, C, C++, C#, and R.

3. What are some tasks that might be a good fit for full automation? Select all that apply. **1 point**

- ☑ Detecting and removing duplicate data
- ☐ Haircuts and styling
- ☑ Interviewing and hiring employees
- ☑ Updating specific files on multiple computers

4. What is the term for the intended meaning or effect of statements in a programming language? **1 point**

- ◉ Semantics
- ○ Grammar
- ○ Format
- ○ Syntax

5. What is a property of Python that makes it easier to understand than some other programming languages? **1 point**

- ◉ Code is similar to the English language.
- ○ You can use Python code in any other language.
- ○ Basic guidelines can be given and it will write the code.
- ○ Python doesn't have a defined syntax.

6. Which Python function will output text, or other value, to the screen? **1 point**

- ○ echo
- ◉ print()
- ○ output()
- ○ console.out

7. What should be the output of the expression below? **1 point**

```
1  print(15+5+(3*2)/4**2+(3-7)*7)
```

- ○ 15.0
- ○ 81.0
- ◉ -7.625
- ○ 6.0

8. Assuming there are 60 minutes in an hour, write a program that calculates the number of minutes in a 24 hour day. Print the result on the screen. Note: Your result should be in the format of just a number, not a sentence. **1 point**

```
1  # Enter code here:
2  print(60*24)
3
4  # Should print 1440
```

Run
Reset

```
1440
```

9. Use Python to calculate how many number-based passcodes can be formed with 10 numerals (0 through 9). For a 1 numeral passcode, there would be 10 possibilities. For a 2 numeral passcode, each numeral is independent of the other, so there would be 10 times 10 possibilities. Using this information, print the amount of possible passwords that can be formed with 8 numerals. Note: Your result should be in the format of just a number, not a sentence. **1 point**

```
1  # Enter code here:
2  print("100000000")
3  # Should print 100000000
```

Run
Reset

```
100000000
```

10. Consider this scenario about using Python to make calculations: **1 point**

In a managed computing environment, there are 200 remote computers that must download 200 MB (megabytes) of updates each month. There are 1024 KB (kilobytes) in each MB.

Fill in the blank in the code below to compute the number of total kilobytes downloaded by these computers from the remote update server each month.

```
1  download_size_kb = 200*1024
2  total_computers = 200
3  total_kbs = download_size_kb * total_computers
4
5
6  print(total_kbs) # Should print 40960000.0
```

Run

Reset

```
40960000
```

Upgrade to submit