CMP167 – Quiz #07

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Results:

Name:

Class:

Date:

1. What Python reserved word starts with a class definition?
   a. def
   b. class
   c. object
   d. __init__

2. A method definition is similar to a(n):
   a. loop
   b. module
   c. import statement
   d. function definition

3. What does the following expression evaluate to:
   not a and (b or c) == (a and b) or (a and c)

4. New objects are created by invoking a constructor
   a. True
   b. False

5. Functions that live in objects are called instance variables
   a. True
   b. False

6. An object may have only one instance variable
   a. True
   b. False

7. In a Python class, the constructor is called __init__
   a. True
   b. False

8. Within a method definition, the instance variable x xould be accessed via which expression:
   a. x
   b. self.x
   c. self[x]
   d. self.getX()

9. What is the difference between instance variable and "regular" function variables?

Extra Credit: Write a class to represent the geometric solid sphere. Your class should implement the following methods:

- __init__(self, radius): creates a sphere of given radius
- get_radius(self): Returns the radius of this sphere
- surface_area(self): Returns the surface area of the sphere
- volume(self): returns the volume of the sphere

$$Surface\ Area\ of\ Sphere = 4 * \pi * r^2$$

$$Volume\ of\ Sphere = \frac{4}{3} * \pi * r^3$$

Use the back of this page for your answer.