Python 3: The Python Environment

Lesson 7, Quiz 1

Handed in: 6 Jan 2016 02:35:29PM Graded: 6 Jan 2016 07:47:28PM

Question 1:

What are the three commonly held fundamental concepts of object-oriented programming?

##### **Your Answer:**

Encapsulation, inheritance, and polymorphism

##### **Mentor Comments:**

*none*

Question 2:

What is inheritance?

##### **Your Answer:**

When a class passes its methods and attributes down to its subclasses.

##### **Mentor Comments:**

*none*

Question 3:

Encapsulation is the idea that the only way to access or change the data inside an object is by calling its methods; what is Python's take on it?

##### **Your Answer:**

That it's not necessary. Which makes sense, since relying on getters and setters is mostly useful in strongly typed languages where you want to be sure about what type of object a property is set to.

##### **Mentor Comments:**

right. If you design pattern requires setters and getters, Python has the syntax, but by default design it's loose / liberal about setting / getting attributes

Question 4:

What is the method resolution order for class Puppy(Dog, Young, Untrained)?

##### **Your Answer:**

Dog, then Young, then Untrained

##### **Mentor Comments:**

Puppy even before Dog.  
  
these baseclasses may themselves have baseclasses in which case the MRO is more twisted, but still hits them in the order you show, with other stuff in between.  
  
https://www.python.org/download/releases/2.3/mro// (Python 3.x uses the same MRO introduced back in 2.3)

### **Overall Comments:**

Good job. See comments.  
  
-Kirby

### **Grade:**

Great