Java and Python are popular object-oriented languages that differ in important ways. We consider these differences in the following problems.

1. There is no "underscore guilt" in Java. Explain how Java's private keyword helps to support data abstraction in its classes.

2. Python allows parallel assignment, as demonstrated by following idiom for exchanging two int values:

   ```
   a, b = b, a
   ```

   Parallel assignment is not possible in Java. Write Java code to exchange two int values `a` and `b`:

   ```
   int a = 1;
   int b = 2;
   ```

3. Comparing objects' values in Java is slightly different than in Python. Write an if statement that prints "It's null" if the variable String name is null, prints "Dog" if String name is "Pixel" and prints "Other" if String name is any other value:
4. There are no properties or `@x.setter` annotations for Java methods. Write a mutator method for the Color.java Color class, `changeColor(...)`, that accepts three variables representing the new red, green, and blue channels of an RGB color. Change the existing color to the color represented by these three arguments. (Note: Adding this method will render our Color class mutable!)

5. In Java, the `contains` method is typically implemented to allow users to check to see if a container class holds a value that is equal to a value, `v`. Write a recursive `contains` method in Java for the `Tree` class we're developing in this week's lab.

   ```java
   public boolean contains(String v)
   ```

6. For the previous code where you write a `contains` method for Tree.java, explain why this will never be null:

   *