CS163/CSS164: Worksheet Complex Conditionals and Composition

Name(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What is printed when the following code executes and x has been set to 3 and y has been set to 6?

**if** (x > 0 && (y / x) == 3)

{

System.out.println("first case");

}

**else**

{

System.out.println("second case");

}

1. What is printed when the following code executes and x has been set to 3 and y has been set to 6? Notice that it is now an **or** (||) instead of **and** (&&).

**if** (x > 0 || (y / x) == 3)

{

System.out.println("first case");

}

**else**

{

System.out.println("second case");

}

1. Consider the following code segment. What is printed as a result of executing the code segment?

int x = 10;

int y = 5;

**if** (x % 2 == 0 && y % 2 == 0 || x > y)

{

System.out.print("First ");

**if** (y \* 2 == x || y > 5 && x <= 10)

{

System.out.print("Second ");

}

**else**

{

System.out.print("Third ");

}

}

1. Analyze the codes provided, answer the questions, and implement the required methods.

* Circle the instance variables of each class.
* Explain the toString method for Person and Animal class.
* For the Animal constructor, what is the only “this.” that could be removed from that method? Why?
* Implement the sets and gets for all Animal instance variables.
* Write exactly what is going to be printed in the terminal is we run the main method.

public class Person {  
 private String name;  
 private String phone;  
  
 public Person(String name, String phone){  
 setName(name);  
 setPhone(phone);  
 }  
 public void setName(String name){  
 this.name = name;  
 }  
 public void setPhone(String phone){  
 this.phone = phone;  
 }  
 public String toString(){  
 return String.*format*("Name: %s\nPhone:%s\n", name, phone);  
 }  
}

public class Animal {  
 private String name;  
 private int yearsOld;  
 private Person owner;  
  
 public Animal(String name, int years, Person owner){  
 this. name = name;  
 this.yearsOld = years;  
 this.owner = owner;  
 }  
 */\*\*  
 \* Implement sets and gets for all instance variables  
 \*/* public String toString(){  
 return String.*format*("Animal name: %s, Years old: %d\nOwners Info\n%s", name, yearsOld, owner.toString());  
 }  
}

public class App {  
 public static void main(String args[]){  
 Person owner = new Person("Maria", "9990001234");  
 Animal animal = new Animal("puppy", 1, owner);  
 System.*out*.println(animal.toString());  
 }  
}