**Problem Set - classes Name:** Frederick Uy

1. Answer the following questions about the code below.

|  |  |
| --- | --- |
| 1 | public class car{ |
| 2 | int speed; |
| 3 | String make; |
| 4 | String color; |
| 5 |  |
| 6 | public \_\_car\_ (int speed, String make, String color){ |
| 7 | this.speed = speed; |
| 8 | this.make = make; |
| 9 | this.color - colorl |
| 10 | System.out.println(“New car created”); |
| 11 | } |
| 12 |  |
| 13 | public int accelerate(){ |
| 14 | speed = speed + 5; |
| 15 | return speed; |
| 16 | } |
| 17 | } |

* 1. **[3 points] What are the instance variables?**

Instance variables are variables declared in a class but is located outside of a constructor or a method. They are created when an object is instantiated in a class. For this example, the instance variables are speed, make, and color.

* 1. **Fill in the code on lines 6 – 11 to create the constructor:**
     1. **[1 point] Complete the constructor declaration**
     2. **[3 points] Set each variable to the values passed as arguments**
     3. **[1 point] Print the statement *New car created***

( answer is highlighted on the program above)

* 1. [**1 points] Create a car object called *auto1* using the car class and given constructor. Note: Do not use the default constructor.**

class Main {

public static void main(String[] args) {

car auto1=new car(30,"Toyota","Blue"); //this info is random, I just thought about it.

System.out.println(auto1.accelerate());

}

}

* 1. **[1 point] Given the object you created, what is the output from the following line of code:**

**System.out.println(auto1.accelerate());**

Since the speed I created in the object before is 30, plus 5, therefore the output from the following line of code should be 35.