In Class Practice Set Three for Methods in Java

1. What is wrong with the following Java function?

```
public static int square(int x);  {

        return x*x;

    }
```

2. What does the following Java function do?

```
public static int eq3(int a, int b, int c) {

 if ((a == b) && (a == c))

     return 1;

 else

     return 0;

 }
```

3. Write a Java function that takes two integers as arguments and returns the value of the largest one.

4. Write a Java method (overloaded of the one in question 3) that takes *three* integers as arguments and returns the value of the largest one.

5. Write a Java method that takes a real number as an argument and returns the absolute value of that number.   (Do not use Math Library)

6. Write a Java function that takes a positive integer n as an argument and returns 1 if n is prime, and 0 otherwise.

7. Write a Java method that takes a positive integer as input and returns the leading digit in its decimal representation. For example, the leading digit of 234567 is 2.

8. Re-write the same calculator we did in class using Methods. Explain how you would decompose the problem into methods (In teams of two students)

9. Re-write the ATM machine we did in class using methods.   Explain how you would decompose the problem into methods (In teams of two students) Assume that the use can access two accounts:

    Checking Account (balance starts at $50)

    Savings Account (balance starts at $100)

    Allow the user to be able to enter **invalid** Username or Password only maximum of three time.