Reflection Log - MathTutor [Mastery]

```java
package Mastery;

import java.util.Random;
import java.util.Scanner;


public class MathTutor {

    public static void main(String[] args) {
        // TODO Auto-generated method stub

        //Preparing for user input
        Scanner input = new Scanner(System.in);

        //Create a variable to generate random numbers later
        Random random = new Random();

        //Declaration (for numbers)
        int num1, num2;
        int answerUser, answerC;



        //Generate random numbers
        num1 = random.nextInt(10) + 1; //gets number between 1 and 10
        num2 = random.nextInt(10) + 1; //gets number between 1 and 10
```

So far I have allowed for user input, and declared 4 variables, 2 which will use a randomly generated number from the computer. The other 2 are answers, one inputted by the user and one answer by the computer which will be used later to check if the user is right or wrong.

```java
//Declaration (for operator)
int randomoperator = random.nextInt(4) + 1;
String operator = " ";

switch(randomoperator) {
case 1: operator = "+"; //If 1 is generated than you + the 2 numbers
answerC = (num1 + num2);
break;


case 2: operator = "-";
answerC = (num1 - num2); //If 2 is generated than you - the 2 numbers
break;


case 3: operator = "*";
answerC = (num1 * num2); //If 3 is generated than you * the 2 numbers
break;


case 4: operator = "/";
answerC = (num1 / num2); //If 1 is generated than you / the 2 numbers
break;
default:
    System.out.print("There was an error.");
    return;
}
```

I defined 2 new variables used for the operator. One is defined as a string type and the other is type int. The int variable will take a random number from 1-4, and for each case, a different operator will be generated. If the random number is 1, then the operator will add, if the random number is 2 the operator will subtract, 3 is multiply, and 4 is divided.

```java
//Ask user for answer
System.out.println("What is " + num1 + " " + operator + " " + num2 + "? ");

//User input what they think is the answer.
answerUser = input.nextInt();

if (answerC == answerUser) //If the answer of the computer = answer from the user
{
    System.out.print("Correct!"); //Your answer is correct
}
else
{
    System.out.print("Incorrect. The answer is " + answerC); //Your answer is incorrect. Tell user the answer.
}

}
```

I finished off my code by now asking the user to input the answer they think it is. I compare the user's answer to the computer's answer and if they are the same, then the user's answer is correct, otherwise they get an incorrect statement.