Credit Name: CSE 2140 2nd Language Programming

Assignment Name: Exercise 6 - Math Tutor

Error Log Entry

What error message did you encounter (if any)?

```
4 / 8 = 0.5
Exception in thread "main" java.util.InputMismatchException
    at java.base/java.util.Scanner.throwFor(Scanner.java:947)
    at java.base/java.util.Scanner.next(Scanner.java:1602)
    at java.base/java.util.Scanner.nextInt(Scanner.java:2267)
    at java.base/java.util.Scanner.nextInt(Scanner.java:2221)
    at Mastery.mathTutor.main(mathTutor.java:26)
```

6

```
4 / 5 = 0.8
Sorry, incorrect!
The correct answer is:0
```

```
6 / 10 = 0.6
Sorry, incorrect!
The correct answer is:0.0
```

What unexpected behavior did your program exhibit?

At the first my code didn't allow the user to enter a decimal number

Instead of displaying a equation for the user to selve, the code automatically did the math for the number and printed out the final result (6)

Then after fixing that, the calculated answer to compare the users guess to didn't want to round properly, or sometimes it just entirely gave the wrong answer.

What caused the issue? (e.g., syntax error, logic error, incorrect function usage, etc.)

Logic error

Include a screenshot of specific lines of code.

```java
int guess = input.nextInt();    System.out.print(num1 + randomOperator + num2 + " = ");

else if(randomOperator == '/')
{
    answer = (num1 / num2) + (num1 % num2);
}
```

How did you fix the issue?

In order to get rid of the first error message I needed to change the nextInt to nextDouble so the user could enter a decimal number.

I had to add empty strings between the numbers so that the code sees the numbers are charcters instead of numbers needed to be calculated.

To fix the calculation errors, I had to find a way that could round it to tenths place, by multiplying the answer by 10 to get the first decimal into the whole numbers and then using the Math.round feature to round it to the closest whole number, then lastly divide it by 10 to bring it back into a decimal number

Provide the corrected code or solution using a screenshot.

```java
double guess = input.nextDouble();    System.out.print(num1 + " " + randomOperator + " " + num2 + " = ");

else if(randomOperator == '/')
{
    answer = (double) num1 / num2;
    answer = Math.round(answer * 10.0) / 10.0;
}
```