

MathTutor Mastery ReflectionLog

Within the division section of my code I was defining a double variable with int calculations

```
//Decides on operator
if (rand == 1) {
    double ans = (num1 + num2);
    System.out.print(num1 + " + " + num2 + " : ");
    double user = userInput.nextInt();
    if (user == ans) {
        System.out.print("Correct!");
    } else {
        System.out.print("Incorrect, the correct answer was " + ans);
    }
} else if (rand == 2) {
    double ans = (num1 - num2);
    System.out.print(num1 + " - " + num2 + " : ");
    double user = userInput.nextInt();
    if (user == ans) {
        System.out.print("Correct!");
    } else {
        System.out.print("Incorrect, the correct answer was " + ans);
    }
} else if (rand == 3) {
    double ans = (num1 * num2);
    System.out.print(num1 + " * " + num2 + " : ");
    double user = userInput.nextInt();
    if (user == ans) {
        System.out.print("Correct!");
    } else {
        System.out.print("Incorrect, the correct answer was " + ans);
    }
} else if (rand == 4) {
    double ans = ((double) num1 / num2);
    System.out.print(num1 + " / " + num2 + " : ");
    double user = userInput.nextInt();
    if (user == ans) {
        System.out.print("Correct!");
    } else {
        System.out.print("Incorrect, the correct answer was " + ans);
    }
}
```

The following error would result.

```
4 / 5 : 0.8
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 Chapter4/Mastery.MathTutor.main(MathTutor.java:59)
```

To fix this I used type casting, pictured below

```
else if (rand == 4) {  
    double ans = ((double) num1 / num2);  
    System.out.print(num1 + " / " + num2 + " : ");  
    double user = userInput.nextInt();  
    if (user == ans) {  
        System.out.print("Correct!");  
    }  
}
```