

1. Download `FixErrorsAndFormat.java` program on D2L.

This program has compiling errors, and it does not have appropriate form and style. Your job is to fix the errors and format the source code.

- Fix compiling errors.
- Use Java naming convention to name the variables.
- Format the source code appropriately (Use indentation, blank line, and comments to make the source code easy to read).

Sample Run:

```
Fix Errors and Format Program - By Your Name

Welcome to RCTC
Spring 2019
This program has many bugs.
20 + 19 = 39
Area: 546
Sum: 53
Quotient: 2
Remainder: 11
Income: 56900.5
Tax: 12518.11
Bonus: 1575.99
Message: Hello
Key: w
```

2. (`Exercise.java`) Write a Java program according to the following instructions:
 - a) Imports the **class** `Scanner`
 - b) Declare `keyboard` to be a `Scanner` object for inputting data from the standard input device
 - c) Declare and initialize the following named constants:
 - `SOME_VALUE` of type **int** initialized to 13
 - `DISCOUNT_RATE` of type **double** initialized to 7.85
 - d) Declare the following variables:
 - `number1`, `number2`, and `number3` of type **int**
 - `itemName` of type **String**
 - `purchasePrice` and `discountAmount` of type **double**
 - e) Prompt the user to input two integers and store the first integer into `number1` and the second integer into `number2`
 - f) Output the value of `number1` and `number2`, indicating which is `number1` and which is `number2`.
 - g) Calculate addition, subtraction, multiplication, and division (both quotient and remainder) on `number1` and `number2`
 - h) Multiply the value of `number1` by 3, add the value of `number2` to it, and then store the result in `number3`
 - i) Output the value of `number3`
 - j) Update the value of `number3` by adding the value of the constant `SOME_VALUE`
 - k) Output the value of `number3` with an appropriate message
 - l) Prompt the user to enter a retail item's name and then store the name into the variable `itemName`
 - m) Prompt the user to enter a decimal number and then store the number entered into `purchasePrice`

- n) Multiple the value of the constant DISCOUNT_RATE with the value of purchasePrice and store the result into the variable discountAmount
- o) Calculate the total amount
- p) Output the result

Sample Run:

```

Enter first number: 27
Enter second number: 5

The value of number1 = 27 and the value of number2 = 5.

27 + 5 = 32
27 - 5 = 22
27 * 5 = 135
27 / 5 = 5
27 % 5 = 2

The value of number3 = 86
The value of number3 + SOME_VALUE = 99

Enter item name: T-Shirt
Enter purchase price as a decimal number: 47.99

Item Name: T-Shirt
Discount Rate: 7.85%
Item Price: $ 47.99
Discount Amount: $ 3.7672149999999998
Total Amount Before Tax: $ 44.222786

```

Due: Wednesday, 8/31/22

- To receive full credit, the assignment must be submitted by the due date.
- Late submissions will incur a penalty of 5% per day.
- **Upload the source code files to D2L.**

Style, form, documentation, naming convention, and more

Each program should have a file header section. /* * Author: Your name * Date: Date of completion * Assignment: Assignment # NameOfSourceCode.java * Description: The program description */	Up to 5% deduction
Each program should be written with the appropriate form and style. Use indentation, blank line, and comments to make the source code easy to read.	Up to 5% deduction
Use Java naming convention and meaningful names to name the classes, methods, variables, constants, and other identifiers in the programs.	Up to 5% deduction
Format the output appropriately	Up to 5% deduction