

Replace Symbols with Words in Calculator Expression

Problem Statement

In a calculator display, operations are often represented with symbols like +, -, *, /, and so on. Sometimes, we want to convert these symbols to **full words** for better readability, such as:

- + → "Plus"
- - → "Minus"
- * → "Times"
- / → "Divided By"

You are given a string input containing symbols and digits.
You need to write **one line of code** that replaces all these symbols with their corresponding words using a helper method provided.

The helper method `formatExpression(String input)` is already defined.
It returns a modified version of the string where the operator symbols are replaced with their readable word equivalents.

Private Test cases used for evaluation	Input	Expected Output	Actual Output	Status
Test Case 1	2+3*5	2 Plus 3 Times 5	2 Plus 3 Times 5	Passed

The due date for submitting this assignment has passed.
1 out of 1 tests passed.
You scored 100.0/100.

Assignment submitted on 2025-04-16, 23:35 IST

Your last recorded submission was :

```
1 import java.util.Scanner;
2
3 public class W12_P5 {
4
5     // Helper method to format an expression by replacing symbols with words
6     public static String formatExpression(String input) {
7         String output = input;
8         output = output.replace("+", " Plus ");
9         output = output.replace("-", " Minus ");
10        output = output.replace("*", " Times ");
11        output = output.replace("/", " Divided By ");
12        return output;
13    }
14
15    public static void main(String[] args) {
16        Scanner sc = new Scanner(System.in);
17
18        // Read an expression that contains digits and operators
19        String expression = sc.nextLine();
20        System.out.print(formatExpression(expression));
21        sc.close();
22    }
23 }
```

Sample solutions (Provided by instructor)

```
1 import java.util.Scanner;
2
3 public class W12_P5 {
4
5     // Helper method to format an expression by replacing symbols with words
6     public static String formatExpression(String input) {
7         String output = input;
8         output = output.replace("+", " Plus ");
9         output = output.replace("-", " Minus ");
10        output = output.replace("*", " Times ");
11        output = output.replace("/", " Divided By ");
12        return output;
13    }
14
15    public static void main(String[] args) {
16        Scanner sc = new Scanner(System.in);
17
18        // Read an expression that contains digits and operators
19        String expression = sc.nextLine();
20        System.out.println(formatExpression(expression)); // Call the formatter and print the output
21    }
22    /*
23    Explanation:
24    - The formatExpression method replaces symbols in the expression with their word equivalents.
25    - For example, '+' becomes "Plus", '*' becomes "Times", and so on.
26    - This makes the expression easier to read.
27
28    Final Note:
29    This was your final task of Week 12 and the last programming problem in the course.
30    Although the solution required only one line of code, the idea behind the task reflects real-world scenarios where raw in
31    Completing this problem signifies that you have not only learned the basics of Java but also practiced writing clean, str
32    We encourage you to take pride in reaching this point and to continue your journey of learning with the same commitment a
33    Well done.
34    */
35    sc.close();
36    }
37 }
```