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Java Week 9 : Q1

Due on 2020-04-03, 23:59 IST

Complete the code to **develop a BASIC CALCULATOR** that can perform operations like *Addition, Subtraction, Multiplication and Division*.

Note the following points carefully:

1. Use only double datatype to store calculated numeric values.
2. Assume input to be of integer datatype.
3. The output should be rounded using Math.round() method.
4. Take care of the spaces during formatting output (e.g., single space each before and after =).
5. The calculator should be able to perform required operations on a minimum of two operands as shown in the below example:

Input:

5+6

Output:

5+6 = 11

Private Test cases used for evaluation

Test Case 1

Test Case 2

Input	Expected Output	Actual Output	Status
5*5	5*5 = 25	5*5 = 25	Passed
5/5	5/5 = 1	5/5 = 1	Passed

The due date for submitting this assignment has passed.

Course outline

How does an NPTEL online course work?

Week 0 :

Week 1 :

Week 2 :

Week 3 :

Week 4 :

Week 5 :

Week 6 :

Week 7 :

Week 8 :

Week 9 :

● Lecture 41 :
Demonstration-

XV (unit?
unit=10&lesson=55)

2 out of 2 tests passed.
You scored 100.0/100.

Lecture 42 :
AWT
Programming--
III (unit?
unit=10&lesson=56)

Assignment submitted on 2020-04-03, 21:32 IST

Your last recorded submission was :

Lecture 43 :
Swing—I
(unit?
unit=10&lesson=57)

Lecture 44 :
Swing—II
(unit?
unit=10&lesson=58)

Lecture 45 :
Demonstration-
XVI (unit?
unit=10&lesson=59)

Quiz :
Assignment 9
(assessment?
name=104)

Java Week 9 :
Q1
(/noc20_cs08/progass
name=167)

Java Week 9 :
Q2
(/noc20_cs08/progassig
name=168)

Java Week 9 :
Q3
(/noc20_cs08/progassig
name=169)

Java Week 9 :
Q4
(/noc20_cs08/progassig
name=170)

Java Week 9 :
Q5
(/noc20_cs08/progassig
name=171)

Feedback For
Week 9 (unit?
unit=10&lesson=178)

Week 10 :

```

1 import java.util.Scanner;
2 public class Question91{
3     public static void main(String args[]){
4         Scanner sc = new Scanner(System.in);
5         String input = sc.nextLine(); // Read as string, e.g., 5+6
6         // Declare and initialize the required variable(s)
7
8         // Split the input string into character array
9
10        /*
11        Write your method to separate two operands
12        and operators and then perform the required operation.
13        */
14
15        // Print the output as stated in the question
16        // Declare and initialize the required variable(s)
17        int i=0;
18        int j=0;
19        double output=0;
20        // Split the input string into character array
21        char seq[] = input.toCharArray();
22        /*
23        Use some method to separate the two operands
24        and then perform the required operation.
25        */
26        for(int a=0; a<seq.length; a++){
27            if(seq[a]=='+'){
28                i= Integer.parseInt(input.substring(0,a));
29                j= Integer.parseInt(input.substring(a+1,seq.length));
30                output = (double)i+j;
31            }else if(seq[a]=='-'){
32                i= Integer.parseInt(input.substring(0,a));
33                j= Integer.parseInt(input.substring(a+1,seq.length));
34                output = (double)i-j;
35            }else if(seq[a]=='/'){
36                i= Integer.parseInt(input.substring(0,a));
37                j= Integer.parseInt(input.substring(a+1,seq.length));
38                output = (double)i/j;
39            }else if(seq[a]=='*'){
40                i= Integer.parseInt(input.substring(0,a));
41                j= Integer.parseInt(input.substring(a+1,seq.length));
42                output = (double)i*j;
43            }
44        }
45        // Print the output as stated in the question
46        System.out.print(input+" = " + Math.round(output));
47    }
48 }
```

Sample solutions (Provided by instructor)

Select the Language . Java ▼

```

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2 public class Question91{
3     public static void main(String args[]){
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17            if(seq[a]=='+'){
18                i= Integer.parseInt(input.substring(0,a));
```

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```
19         j= Integer.parseInt(input.substring(a+1,seq.length));
20         output = (double)i+j;
21     }else if(seq[a]=='-'){
22         i= Integer.parseInt(input.substring(0,a));
23         j= Integer.parseInt(input.substring(a+1,seq.length));
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35 // Print the output as stated in the question
36 System.out.print(input+" = " + Math.round(output));
37 }
38 }
```