

Java Week 9 : Q1

Due on 2020-11-19, 23:59 IST

Course outline

How does an NPTEL online course work?

Week 0 : Assignment 0

Week 1 :

Week 2 :

Week 3 :

Week 4 :

Week 5 :

Week 6 :

Week 7 :

Week 8 :

Week 9 :

- Lecture 41 : Demonstration- XV
- Lecture 42 : AWT Programming--III
- Lecture 43 : Swing—I
- Lecture 44 : Swing—II
- Lecture 45 : Demonstration- XVI
- Quiz: Assignment 9
- Java Week 9 : Q1**
- Java Week 9 : Q2
- Java Week 9 : Q3
- Java Week 9 : Q4
- Java Week 9 : Q5
- Feedback For Week 9

Week 10 :

Week 11 :

Week 12 :

Solution

DOWNLOAD VIDEOS

Text Transcripts

Programming Test - (April 11 - 10AM - 12 PM)

Programming Test - (April 11 - 8PM - 10 PM)

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.

2 out of 2 tests passed.

You scored 100.0/100.

Assignment submitted on 2020-11-10, 22:43 IST

Your last recorded submission was :

```

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         // Split the input string into character array
8         //
9         /*
10        Write your method to separate two operands
11        and operators and then perform the required operation.
12        */
13        // Print the output as stated in the question
14
15        int i=0;
16        int j=0;
17        double output=0;
18
19        char seq[] = input.toCharArray();
20
21        for(int a=0; a<seq.length; a++){
22            if(seq[a]=='+' || seq[a]=='-'){
23                i = Integer.parseInt(input.substring(0,a));
24                j = Integer.parseInt(input.substring(a+1,seq.length));
25                output = (double)i+j;
26            }else if(seq[a]=='*'){
27                i = Integer.parseInt(input.substring(0,a));
28                j = Integer.parseInt(input.substring(a+1,seq.length));
29                output = (double)i*j;
30            }else if(seq[a]=='/'){
31                i = Integer.parseInt(input.substring(0,a));
32                j = Integer.parseInt(input.substring(a+1,seq.length));
33                output = (double)i/j;
34            }else if(seq[a]=='%'){
35                i = Integer.parseInt(input.substring(0,a));
36                j = Integer.parseInt(input.substring(a+1,seq.length));
37                output = (double)i%j;
38            }
39        }
40        System.out.print(input+" = " + Math.round(output));
41    }
42 }

```

Sample solutions (Provided by instructor)

```

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         int i=0;
8         int j=0;
9         double output=0;
10        // Split the input string into character array
11        char seq[] = input.toCharArray();
12        /*
13        Use some method to separate the two operands
14        and then perform the required operation.
15        */
16        for(int a=0; a<seq.length; a++){
17            if(seq[a]=='+' || seq[a]=='-'){
18                i = Integer.parseInt(input.substring(0,a));
19                j = Integer.parseInt(input.substring(a+1,seq.length));
20                output = (double)i+j;
21            }else if(seq[a]=='*'){
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30                i = Integer.parseInt(input.substring(0,a));
31                j = Integer.parseInt(input.substring(a+1,seq.length));
32                output = (double)i%j;
33            }
34        }
35        System.out.print(input+" = " + Math.round(output));
36    }
37 }

```

```
27         j= Integer.parseInt(input.substring(a+1,seq.length));
28         output = (double)i/j;
29     }else if(seq[a]=='*'){
30         i= Integer.parseInt(input.substring(0,a));
31         j= Integer.parseInt(input.substring(a+1,seq.length));
32         output = (double)i*j;
33     }
34 }
35 // Print the output as stated in the question
36 System.out.print(input+" = " + Math.round(output));
37 }
38 }
```