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| **Ex No: 4** | Calculator |

**AIM**

Design a calculator to perform the operations, namely, addition, subtraction, multiplication, division and square of a number.

**PRE-LAB QUESTIONS**

1. Write a C program to print first N odd numbers
2. Write a C program to find the sum of N odd numbers
3. Write a C program to print the day of a week. (eg: 1 – Monday, 2 – Tuesday , …)

**ALGORITHM**

**Step 1:** Start  
**Step 2:**  Read choice  
**Step 3:**   
 Step 3.1: If choice == 1:   
 get two numbers and perform addition  
 Step 3.2: If choice == 2:   
 get two numbers and perform subtraction  
 Step 3.3: If choice == 3:   
 get two numbers and perform multiplication  
 Step 3.4: If choice == 4:   
 get two numbers and perform division  
 Step 3.5: If choice == 5:   
 get a number and find its square root

**Step 4:**  print the result  
**Step 5:** End

**PROGRAM**

#include<stdio.h>

#include<math.h>

int main**()**

**{**

int choice**;**

int x**,** y**;**

float z**;**

printf**(**"1 Addition\n"**);**

printf**(**"2 Subtraction\n"**);**

printf**(**"3 Multiplication\n"**);**

printf**(**"4 Division\n"**);**

printf**(**"5 Square root\n"**);**

printf**(**"Enter choice:"**);**

scanf**(**"%d"**,** **&**choice**);**

printf**(**"Enter the input values\n"**);**

scanf**(**"%d"**,** **&**x**);**

**if(**choice **!=** 5**)**

scanf**(**"%d"**,&**y**);**

**switch(**choice**)**

**{**

**case** 1**:** z **=** x **+** y**;** **break;**

**case** 2**:** z **=** x **-** y**;** **break;**

**case** 3**:** z **=** x **\*** y**;** **break;**

**case** 4**:** z **=** **(**float**)** x **/** y**;** **break;**

**case** 5**:** z **=** sqrt**(**x**)** **;** **break;**

**}**

printf**(**"%f"**,** z**);**

**}**

**INPUT**

1 Addition

2 Subtraction

3 Multiplication

4 Division

5 Square root

Enter choice: 5

Enter the input values

5

**OUTPUT**

2.236068

**POST-LAB QUESTIONS**

1. Write a C program to print the given digit in alphabet  
   ( example: 5 – FIVE, 9 – NINE)

**RESULT**

Thus the C program to perform the operations, namely, addition, subtraction, multiplication, division and square of a number has been written, executed and verified successfully.