

```
1 #include <stdio.h>
2
3 int main(void)
4 {
5     //function declarations
6     void MathematicalOperations(int, int, int *, int *, int *, int *, int *);
7
8     //variable declaration
9     int a;
10    int b;
11    int answer_sum;
12    int answer_difference;
13    int answer_product;
14    int answer_quotient;
15    int answer_remainder;
16
17    //code
18    printf("\n\n");
19    printf("Enter Value Of 'A' : ");
20    scanf("%d", &a);
21
22    printf("\n\n");
23    printf("Enter Value Of 'B' : ");
24    scanf("%d", &b);
25
26    // PASSING ADDRESSES TO FUNCTION ... FUNCTION WILL FILL THEM UP WITH
    VALUES ... HENCE, THEY GO INTO THE FUNCTION AS ADDRESS PARAMETERS AND COME
    OUT OF THE FUNCTION FILLED WITH VALID VALUES
27    // THUS, (&answer_sum, &answer_difference, &answer_product, &answer_quotient,
    &answer_remainder) ARE CALLED "OUT PARAMETERS" OR "PARAMETERIZED RETURN
    VALUES" ... RETURN VALUES OF FUNCTIONS COMING VIA PARAMETERS
28    // HENCE, ALTHOUGH EACH FUNCTION HAS ONLY ONE RETURN VALUE, USING THE CONCEPT
    OF "PARAMETERIZED RETURN VALUES", OUR FUNCTION "MathematicalOperations()"
    HAS GIVEN US 5 RETURN VALUES !!!
29
30    MathematicalOperations(a, b, &answer_sum, &answer_difference, &answer_product,
    &answer_quotient, &answer_remainder);
31
32    printf("\n\n");
33    printf("***** RESULTS ***** : \n\n");
34    printf("Sum = %d\n\n", answer_sum);
35    printf("Difference = %d\n\n", answer_difference);
36    printf("Product = %d\n\n", answer_product);
37    printf("Quotient = %d\n\n", answer_quotient);
38    printf("Remainder = %d\n\n", answer_remainder);
39    return(0);
40 }
41
42 void MathematicalOperations(int x, int y, int *sum, int *difference, int *product,
    int *quotient, int *remainder)
43 {
44     //code
```

```
45     *sum = x + y;           // Value at address 'sum' = (x + y)
46     *difference = x - y;    // Value at address 'difference' = (x - y)
47     *product = x * y;       // Value at address 'product' = (x * y)
48     *quotient = x / y;      // Value at address 'quotient' = (x / y)
49     *remainder = x % y;     // Value at address 'remainder' = (x % y)
50 }
51
```