

```
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
27     VALUES ... HENCE, THEY GO INTO THE FUNCTION AS ADDRESS PARAMETERS AND
28     COME OUT OF THE FUNCTION FILLED WITH VALID VALUES
29
30     // THUS, (&answer_sum, &answer_difference, &answer_product,
31     &answer_quotient, &answer_remainder) ARE CALLED "OUT PARAMETERS" OR
32     "PARAMETERIZED RETURN VALUES" ... RETURN VALUES OF FUNCTIONS COMING VIA
33     PARAMETERS
34
35     // HENCE, ALTHOUGH EACH FUNCTION HAS ONLY ONE RETURN VALUE, USING THE
36     CONCEPT OF "PARAMETERIZED RETURN VALUES", OUR FUNCTION
37     "MathematicalOperations()" HAS GIVEN US 5 RETURN VALUES !!!
38
39     MathematicalOperations(a, b, &answer_sum, &answer_difference,
40     &answer_product, &answer_quotient, &answer_remainder);
41
42     printf("\n\n");
43     printf("***** RESULTS ***** : \n\n");
44     printf("Sum = %d\n\n", answer_sum);
45     printf("Difference = %d\n\n", answer_difference);
46     printf("Product = %d\n\n", answer_product);
47     printf("Quotient = %d\n\n", answer_quotient);
48     printf("Remainder = %d\n\n", answer_remainder);
49     return(0);
50 }
51
52 void MathematicalOperations(int x, int y, int *sum, int *difference, int
53 *product, int *quotient, int *remainder)
54 {
55     //code
56     *sum = x + y;           // Value at address 'sum' = (x + y)
57     *difference = x - y;    // Value at address 'difference' = (x - y)
58     *product = x * y;       // Value at address 'product' = (x * y)
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48     *quotient = x / y;    // Value at address 'quotient' = (x / y)
49     *remainder = x % y;  // Value at address 'remainder' = (x % y)
50 }
51
```