

Aim:

Write a program to find the **power** of a given number using recursion process.

Note: Write the recursive function **power()** in **Power1.c**.

Source Code:**Program905.c**

```
#include <stdio.h>
#include "Program905a.c"
void main() {
    int m, n;
    printf("Enter a number : ");
    scanf("%d", &m);
    printf("Enter power : ");
    scanf("%d", &n);
    printf("%d to the power of %d is : %d\n", m, n, power(m, n));
}
```

Program905a.c

```
int power(x,y);
int power(x,y)
{
    if(y==0)
        return 1;
    else
        return (x*power(x,y-1));
}
```

Execution Results - All test cases have succeeded!**Test Case - 1**

User Output

Enter a number : 3

Enter power : 4

3 to the power of 4 is : 81

Test Case - 2

User Output

Enter a number : 4

Enter power : 3

4 to the power of 3 is : 64