

**Program-3:** Write a function power() which raise a number m to a power n. The function takes double value of m and integer value of n and returns the result. Use the default value of n as 2.

### **Code:**

```
#include<iostream>
using namespace std;

double power(double,int=2);

int main()
{
    int p;
    double n,r;
    cout << "Enter number : ";
    cin >> n;
    cout << "Enter exponent : ";
    cin >> p;
    r = power(n,p);
    cout << "Result is " << r;
    r = power(n);
    cout << "\nResult without passing exponent is " << r;

    return 0;
}

double power(double a, int b)
{
    double x = 1;
    for(int i = 1; i <= b; i++)
        x = x * a;
    return x;
}
```

## **OUTPUT:**

**Enter number : 5**

**Enter exponent : 4**

**Result is 625**

**Result without passing exponent is 25**