```cpp
#include<iostream>
using namespace std;
double power(double n, int p=2)
{
double res=1;
for(int i=1; i<=p;i++)
res=res*n;
return res;
int main()
{
double n,result;
int p;
cout<<"enter n and p value"<<endl;
cin>>n>>p;
result=power(n,p);
cout<<n<<" raised to the power "<<p<<" is "<<result<<endl;
result=power(n);
cout<<" By default argument"<<n<<" power 2 is "<<result<<endl;
return 0;
}
```