**Code:**

#include<iostream>

using namespace std;

int max(int a, int b)

{

return (a > b) ? a : b;

}

int knapsack(int W, int wt[], int val[] ,int n)

{

if(n==0|| W==0)

return 0;

if(wt[n-1]>W)

return knapsack(W, wt,val, n-1);

else

return max(val[n-1] + knapsack(W-wt[n-1], wt, val, n-1),

knapsack(W,wt,val,n-1));

}

int main()

{

int W,n;

cout<<"Enter capacity";

cin>>W;

cout<<"Enter no. of elements";

cin>>n;

int val[n],wt[n];

for(int i=0;i<n;i++)

{

cout<<"Enter Weight and value for"<<i<<"element";

cin>>wt[i]>>val[i];

}

cout<<knapsack(W, wt, val, n);

return 0;

}