#include <iostream>

#include<vector>

#include<algorithm>

using namespace std;

int main()

{

//intilization

vector<int>a;

vector<int>b(5,10); //five int with value 10

vector<int>c(b.begin(),b.end());

// copy vector b ele to c

vector<int>d{1,4,3,2};

//iterate over a vector

for(int i=0;i<c.size();i++)

{

cout<<c[i]<<",";

}

cout<<endl;

//iterator

for(auto it=b.begin();it!=b.end();it++)

{

cout<<(\*it)<<",";

}

cout<<endl;

//for each loop

for(auto x:d)

{

cout<<x<<",";

}

cout<<endl;

//take the ele from user using for loop

vector<int>v;

int n;

cin>>n;

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

{

int no;

cin>>no;

v.push\_back(no);

}

for(auto x:v)

{

cout<<x<<",";

}

cout<<endl;

//some useful functions

cout<<v.size()<<endl; //no of ele in vector

cout<<v.capacity()<<endl;// size of underlying vec after pushback

cout<<v.max\_size()<<endl;//max no of ele a vec can hold

}