#include <iostream>

const int NUMEL = 5;

int linearSearch(int [], int, int);

int main()

{

int nums[NUMEL] = {5,10,22,32,45};

int item=0, location=0;

cout << "\nEnter the item you are searching for: ";

cin >> item;

location = linearSearch(nums, NUMEL, item);

if (location > -1)

cout << "The item was found at index location " << location << endl;

else cout << "The item was not found in the list\n";

return 0;

}

// this function returns the location of key in the list

// a -1 is returned if the value is not found

int linearSearch(int list[], int size, int key)

{

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

{

if (list[i] == key)

return i;

}

return -1;

}