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Assignment : Week 5.

Problem 501.

#include <iostream> //library

using namespace std;

int main() { //start function

int arr[100][100]; //array initialization

int z, n; //variables initialization

cin >> z >> n; //input

for (int i = 0; i < z; i++) { //loop

for (int m = 0; m < n; m++) { //loop

cin >> arr[i][m]; //input

}

}

int min = arr[0][0]; //minimum initialization

for (int i = 0; i < z; i++) { //loop

for (int m = 0; m < n; m++) { //loop

if (min > arr[i][m]) { //condition

min = arr[i][m];

//if the condition is true execute this command (equate minimum to array)

}

}

}

cout << min; //output

}

Problem 502.

#include <iostream> //library

using namespace std;

int main() { //start function

int arr[100][100]; //array initialization

int z = 0, n = 0; //variables initialization

int k; //variable initialization

cin >> k; //input

for (int i = 0; i < k; i++) { //loop

for (int m = 0; m < k; m++) { //loop

cin >> arr[i][m]; //input

}

}

for (int i = 0; i < k; i++) { //loop

for (int m = 0; m < k; m++) { //loop

if (i == m) { //condition

z += arr[i][m]; //if the condition is true execute this command (increase)

}

if (i == k - m - 1) { //condition

n += arr[i][m]; //if the condition is true execute this command (increase)

}

}

}

cout << z << " " << n; //output

}

Problem 503.

#include <iostream> //library

using namespace std;

int main() { //start function

int arr[100][100]; //array initialization

int z, v; //variables initialization

cin >> z >> v; //input

for (int i = 0; i < z; i++) { //loop

for (int k = 0; k < v; k++) { //loop

cin >> arr[i][k]; //input

}

}

int row = arr[0][0]; //rows initialization

int col = arr[0][0]; //columns initialization

for (int i = 0; i < z; i++) { //loop

for (int k = 0; k < v; k++) { //loop

if (arr[i][k] == 0) { //condition

row = i; //if the condition is true execute this command

col = k; //if the condition is true execute this command

}

}

}

cout << row + 1 << " " << col + 1; //output

return 0; //function completed successfully

}

Problem 504.

#include <iostream> //library

using namespace std;

int main() { //start function

int arr[101][101]; //array initialization

int z, v; //variables initialization

int row = -1; //rows initialization

int col = -1; //columns initialization

cin >> z >> v; //input

for (int i = 0; i < z; i++) { //loop

for (int k = 0; k < v; k++) { //loop

cin >> arr[i][k]; //input

if (arr[i][k] == -1) { //condition

//if the condition is true execute this commands

row = i + 1; //set row to i and plus 1

col = k + 1; //set column to k and plus 1

}

}

}

if (z != 0 && v != 0) { //condition

cout << row << " " << col; //output

}

else { //condition

cout << "-1 -1"; //output

}

return 0; //function completed successfully

}

Problem 505.

#include <iostream> //library

using namespace std;

int main()

{ //start function

int z[100][100]; //array initialization

int x[100][100]; //array initialization

int c[100][100]; //array initialization

int a; //variable initialization

cin >> a; //input

for (int i = 0; i < a; i++) { //loop

for (int m = 0; m < a; m++) { //loop

cin >> z[i][m]; //input

}

}

for (int i = 0; i < a; i++) { //loop

for (int m = 0; m < a; m++) { //loop

cin >> x[i][m]; //input

}

}

for (int i = 0; i < a; i++) { //loop

for (int m = 0; m < a; m++) { //loop

c[i][m] = z[i][m] + x[i][m]; //input

}

}

for (int i = 0; i < a; i++) { //loop

for (int m = 0; m < a; m++) { //loop

cout << c[i][m] << " "; //output

}

}

cout << endl; //output

return 0; //function completed successfully

}

Problem 506.

#include <iostream> //library

using namespace std;

int main() { //start function

int arr[101][101]; //array initialization

int z; //variable initialization

cin >> z; //input

for (int i = 0; i < z; i++) { //loop

for (int m = 0; m < z; m++) { //loop

cin >> arr[i][m]; //input

}

}

for (int i = 0; i < z; i++) { //loop

for (int m = 0; m < z; m++) { //loop

if (arr[i][m] != arr[m][i]) { //condition

cout << "NO"; //output

return 0; //function completed successfully

}

}

}

cout << "YES"; //output

}

Problem 507.

#include <iostream> //library

using namespace std;

int main() { //start function

int arr[101][101]; //array initialization

int z; //variable initialization

cin >> z; //input

for (int i = 0; i < z; i++) { //loop

for (int m = 0; m < z; m++) { //loop

cin >> arr[i][m]; //input

}

}

int a=0; //variable initialization

for (int i = 0; i < z; i++) { //loop

for (int m = 0; m < z; m++) { //loop

if (i > m) { //condition

a = a + arr[i][m]; //if the condition is true execute this command (increase)

}

}

}

cout << a; //output

}

Problem 508.

#include <iostream> //library

using namespace std;

int main() { //start function

int arr[101][101]; //array initialization

int z; //variable initialization

cin >> z; //input

for (int i = 0; i < z; i++) { //loop

for (int m = 0; m < z; m++) { //loop

cin >> arr[i][m]; //input

}

}

int a=0; //variable initialization

for (int i = 0; i < z; i++) { //loop

for (int m = 0; m < z; m++) { //loop

if (i < m) { //condition

a = a + arr[i][m]; //if the condition is true execute this command

(increase)

}

}

}

cout << a; //output

}

Problem 511.

#include <iostream> //library

using namespace std;

int main() { //start function

int arr[101][101]; //array initialization

int z; //variable initialization

int v = 1; //variable initialization

cin >> z; //input

for (int i = z; i >= 1; i--) { //loop

for (int m = z; m >= 1; m--) { //loop

arr[i][m] = v; //equate array to v

v++; // increase

}

}

for (int m = 1; m <= z; m++) {//loop

cout << endl; //output

for (int i = 1; i <= z; i++) { //loop

cout << arr[i][m] << " "; //output

}

}

}

Problem 514.

#include<iostream> //library

using namespace std;

int main() //start function

{

int z; //variable initialization

cin >> z; //input

for (int i = 0; i < z; i++) //loop

{

int v = 1; //variable initialization

for (int m = 0; m <= i; m++) //loop

{

cout << v; //output

cout << “ “; //output

v = v \* (i - m) / (m + 1); //soultion

}

cout << endl; //output

}

}

Problem 516.

#include <iostream> //library

using namespace std;

int main() { //start function

int z, v; //variables initialization

int arr[101][101]; /array initialization

cin >> z >> v; //input

int a = 0; //variable initialization

for (int i = 0; i < z; i++) { //loop

if (i % 2 == 0) { //condition

for (int m = 0; m < v; m++) { //loop

arr[i][m] = a; //equate array to a

a++; // increase

}

}

else { //condition

for (int m = v - 1; m >= 0; m--) { //loop

arr[i][m] = a; //equate array to a

a++; // increase

}

}

}

for (int i = 0; i < z; i++) { //loop

for (int m = 0; m < v; m++) { //loop

cout << arr[i][m] << " "; //output

}

cout << endl; //output

}

}