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Assignment: Week 6.

Problem 601.

#include <iostream> //library

using namespace std;

int min(int a, int b, int c, int d) { //variables initialization

if (a < b && a < c && a < d) { //condition

return a; //return to this function

}

else if (b < a && b < c && b < d) { //condition

return b; //return to this function

}

else if (c < a && c < b && c < d) { //condition

return c; //return to this function

}

else if (d < a && d < b && d < c) { //condition

return d; //return to this function

}

}

int main() {

int a, b, c, d; //variables initialization

cin >> a >> b >> c >> d; //input

cout << min(a, b, c, d); //output

return 0; //return to main function

}

Problem 602.

#include <iostream> //library

#include <cmath> //library

using namespace std;

double power(double a, int n) { //variables initialization

return pow(a, n); //return to this function

}

int main() {

double a; //variable initialization

int n; //variable initialization

cin >> a >> n; //input

cout << power(a, n) << endl; //output

return 0; //return to main function

}

Problem 603.

#include <iostream> //library

using namespace std;

bool myXor(bool x, bool y) { //variables initialization

if (x == y) { //condition

0; //output

return false; //return false

}

else { 1; } //condition

return true; //return true

}

int main() {

bool x, y; //variables initialization

cin >> x >> y; //input

cout << myXor(x, y); //output

return 0; //return to main function

}

Problem 604.

#include <iostream> //library

using namespace std;

bool election(bool x, bool y, bool z) { //variables initialization

if (x == 1 && y == 1) { //condition

return 1; //return 1

}

else if (x == 1 && z == 1) { //condition

return 1; //return 1

}

else if (y == 1 && z == 1) { //condition

return 1; //return 1

}

else { //condition

0; //output

}

return false; //return false

}

int main() {

bool x, y, z; //variables initialization

cin >> x >> y >> z; //input

cout << election(x, y, z); //output

return 0; //return to main function

}

Problem 605.

#include <iostream> //library

using namespace std;

char getSign(int z, int v) { //variables initialization

if (z>v) { //condition

return '>'; //return sign

}

else if (z<v) { //condition

return '<'; //return sign

}

else { //condition

return '='; //return sign

}

return 0; //return to main function

}

int main() {

int z, v; //variables initialization

cin >> z >> v; //input

cout << getSign(z,v) << endl; //output

return 0; //return to main function

}

Problem 606.

#include <iostream> //library

using namespace std;

int N(int z, int array\_1[100], int array\_2[100]) { //variables initialization

int q = 0, r = 0; //variables initialization

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

cin >> array\_1[i]; //input

if (array\_1[i] > 0) { //condition

q++; //if the condition is true, execute this command

}

}

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

cin >> array\_2[i]; //input

if (array\_2[i] > 0) { //condition

r++; //if the condition is true, execute this command

}

}

if (q > r) { //condition

cout << "Number of positives in the first array is greater" << endl; //output

}

else if (q < r) { //condition

cout << "Number of positives in the second array is greater" << endl; //output

}

else { //condition

cout << "Numbers are equal" << endl; //output

}

return 0; //return to main function

}

int main() {

int z, array\_1[100], array\_2[100]; //variables initialization

cin >> z; //input

cout << N(z, array\_1, array\_2); //output

}

Problem 608.

#include <iostream> //library

#include <string> //library

using namespace std;

string sequence(int arr[100][100], int z, int v) //variables initialization

{

int a = 0; //variable initialization

int r = 0, q = 0; //variables initialization

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

for (int m = 0; m < v - 1; m++) //loop

{

if (arr[i][m] == arr[i][m + 1]) //condition

{

q++; //if the condition is true, execute this command

if (q > a) //condition

{

a = q; //equate these values

r = i; //equate these values

}

}

Else //condition

{

q = 0; //output

}

}

}

if (r == 0) //condition

{

cout << "No series of equal elements"; //output

}

Else //condition

{

cout << "Longest series is in the string " << r; //output

}

return 0; //return to main function

}

int main()

{

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 m = 0; m < v; m++) //loop

{

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

}

}

cout << sequence(arr, z, v); //output

}

Problem 609.

#include <iostream> //library

using namespace std;

int countAccurance(char array\_1[200], char array\_2[200], char z, char v) //variables initialization

{

int q = 0; //variable initialization

cin >> array\_1; //input

for (int i = 0; i < 200 ; i++) //loop

{

if (array\_1[i] == z) //condition

{

q += 1; //if the condition is true, execute this command

}

}

int r = 0; //variable initialization

cin >> array\_2; //input

for (int m = 0; m < 200; m++) { //loop

if (array\_2[m] == v) //condition

{

r += 1; //if the condition is true, execute this command

}

}

cout << q << " " << z << " characters in " << array\_1 << endl; //output

cout << r << " " << v << " characters in " << array\_2 << endl; //output

return 0; //return to main function

}

int main()

{

char array\_1[200], array\_2[200], z, v; //variables initialization

cin >> z >> v; //input

countAccurance(array\_1 , array\_2, z, v); //output

}

Problem 610.

#include <iostream> //library

#include <cstring> //library

using namespace std;

int countAccurrance(char array\_1[100], char q) { //variables initialization

int z = strlen(array\_1); //variable initialization

int v = 0; //variable initialization

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

if (array\_1[i] == q) { //condition

v++; //if the condition is true, execute this command

}

}

return v; //return to v

}

int main() {

int v; //variable initialization

char array\_1[100], q; //variables initialization

cin >> v; //input

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

cin >> q >> array\_1; //input

cout << countAccurrance(array\_1, q) << " " << q << " in " << array\_1 << endl; //output

}

}

Problem 612.

#include <iostream> //library

#include <cstring> //library

using namespace std;

string Y(char array\_1[]) { //variables initialization

int z = strlen(array\_1); //variable initialization

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

array\_1[i] = toupper(array\_1[i]); //output

}

return array\_1; //return to this function

}

int main() {

char array\_1[128]; //variable initialization

cin >> array\_1; //input

cout << Y(array\_1); //output

}

Problem 613.

#include <iostream> //library

#include <cstring> //library

using namespace std;

string Y(char array\_1[]) { //variables initialization

int z = strlen(array\_1); //variable initialization

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

if (array\_1[i] <= 'z' && array\_1[i] >= 'a') { //condition

array\_1[i] = toupper(array\_1[i]); //if the condition is true, execute this command

}

else if (array\_1[i] <= 'Z' && array\_1[i] >= 'A') { //condition

array\_1[i] = tolower(array\_1[i]); //if the condition is true, execute this command

}

}

return array\_1; //return to this function

}

int main() {

char array\_1[128]; //variable initialization

cin >> array\_1; //input

cout << Y(array\_1); //output

}