**Лекція 5.**

**Тема: Масиви та взазівники**

Приклад 1.

#include <iostream>

using namespace std;

int main()

{

const int N = 5;

double a[N], s = 0;

double\* arrayEnd, \* pa;

arrayEnd = a + N;

cout << "Input the elements\n";

for (pa = a; pa < arrayEnd; pa++)

{

cin >> \*pa;

cout << endl;

}

for (pa = a; pa < arrayEnd; pa++)

s += \*pa;

s /= N;

cout << "\n s =" << s << endl;

}

Приклад 2.

#include <iostream>

using namespace std;

int main() {

const int N = 5;

double a[N], s, \* end, \* pi;

cout << "Elements:\n";

for (int i = 0; i < N; i++) {

cout << "a[" << i << "]=";

cin >> a[i];

}

cout << "\n";

for (s = 0, pi = a, end = a + N; pi < end; pi++) {

s += \*pi;

cout << "pi=" << pi << " \*pi=" << \*pi << " s=" << s << endl;

}

cout << "Average =" << s / N << endl;

system("pause");

return 0;

}

Приклад 3.

#include <iostream>

using namespace std;

int main() {

int number = 88; // Declare an int variable and assign an initial value

int\* pNumber; // Declare a pointer variable pointing to an int (or int pointer)

pNumber = &number; // assign the address of the variable number to pointer pNumber

cout << pNumber << endl; // Print content of pNumber (0x22ccf0)

cout << &number << endl; // Print address of number (0x22ccf0)

cout << \*pNumber << endl; // Print value pointed to by pNumber (88)

cout << number << endl; // Print value of number (88)

\*pNumber = 99; // Re-assign value pointed to by pNumber

cout << pNumber << endl; // Print content of pNumber (0x22ccf0)

cout << &number << endl; // Print address of number (0x22ccf0)

cout << \*pNumber << endl; // Print value pointed to by pNumber (99)

cout << number << endl; // Print value of number (99)

// The value of number changes via pointer

cout << &pNumber << endl; // Print the address of pointer variable pNumber (0x22ccec)

}