**Pointer Arithmetic**

A limited set of arithmetic operations can be performed on pointers which are:

* incremented ( ++ )
* decremented ( — )
* an integer may be added to a pointer ( + or += )
* an integer may be subtracted from a pointer ( – or -= )
* difference between two pointers (p1-p2)

(**Note:** Pointer arithmetic is meaningless unless performed on an array.)

C++

// C++ program to illustrate Pointer Arithmetic

#include <bits/stdc++.h>

using namespace std;

void geeks()

{

// Declare an array

int v[3] = { 10, 100, 200 };

// declare pointer variable

int\* ptr;

// Assign the address of v[0] to ptr

ptr = v;

for (int i = 0; i < 3; i++) {

cout << "Value at ptr = " << ptr << "\n";

cout << "Value at \*ptr = " << \*ptr << "\n";

// Increment pointer ptr by 1

ptr++;

}

}

// Driver program

int main() { geeks(); }

**Output**

Value at ptr = 0x7ffe58fe1390

Value at \*ptr = 10

Value at ptr = 0x7ffe58fe1394

Value at \*ptr = 100

Value at ptr = 0x7ffe58fe1398

Value at \*ptr = 200

