#include<iostream>

using namespace std;

void swap(int \*x, int \*y){

int temp = \*x;

\*x = \*y;

\*y = temp;

}

int main()

{

// Every variable has a value and an address

int x = 10;

cout << &x << endl;

// Pointers are variables that contain addresses of other variables

int \*ptr = &x;

// Pointers also have values and addresses.

// Their values are addresses of other variables

cout << ptr << endl;

cout << &ptr << endl;

// Pointers can be used to access memory locations without variables

cout << x << endl;

\*ptr = 20; // Dereferencing: Access value pointed to by pointer

cout << x << endl;

// For example, pointers can be used to swap values of two variables

int y = 30;

cout << x << y << endl;

swap(&x, &y);

cout << x << y << endl;

return 0;

}