#include <iostream.h>

int sum(int *, int);
//int sum(int [],int);

int main()
{
    /**/
    //passing dynamic arrays to functions
    int size = 0;
    cout << "Enter the array size: ";
    cin >> size;
    int *A = new int[size];
    for(int i=0; i<size; i++)
        A[i] = i;
    int Sum = sum(A, size);
    cout << "The sum is: " << Sum << endl;
    delete [] A;
    A = NULL;
    /**/
    //shallow versus deep copies
    int *X = new int[3];
    for(int k=0; k<3; k++)
        X[k] = k+1;

    int *B = new int;
    B = X;  //B is a shallow copy of X

    int *C = new int;
    *C = *X;  //1st element of C is set to current value
    //of 1st element of X

    int *D = new int;
    for(int j=0; j<3; j++)
        D[j] = X[j];  //D is a deep copy of X

    delete [] X;
    */
    return 0;
}

int sum(int *B, int size)
//int sum(int B[],int size)
{
    int temp = 0;
    for(int i=0; i < size; i++)
        temp += B[i];
return temp;
}