

```

import java.io.*;

//////////////////////////////////////////////////////////////////
//
//      The following program sorts integers as they are given.
//
//
//      WRITTEN BY:
//      ALAIN DADAIAN
//
//////////////////////////////////////////////////////////////////

//////////////////////////////////////////////////////////////////
//
// Driver for Homework 12, CS 141, Spring 2001.
//
class Hw12
{
//-----
public static void main (String [] args ) throws Exception
{
    System.out.println("WRITTEN BY ALAIN DADAIAN");
    Sorter s = new Sorter();
    s.display(System.out);
    test(s,1);
    test(s,-5);
    test(s,3);
    test(s,5);
    test(s,5);
    test(s,4);
    test(s,2);
    test(s,1);
    test(s,0);
    test(s,6);
    s.reset();
    test(s,3);
    test(s,2);
    test(s,1);
}
//-----
private static void test ( Sorter s, int i )
{
    s.store(i);
    s.display(System.out);
}
//-----
} // end class Hw12
//////////////////////////////////////////////////////////////////

class Sorter
{
    private int storeInts [];
    private int counter;

//-----
// The constructor Sorter sets up the array and a counter.
//-----
public Sorter ()
{
    storeInts = new int [50];
    counter = 0;
}

//-----
// Inserts the specified integer in the array in ascending order.
//-----
public void store (int a)
{
    int counter2 = 0;

    if (counter == 0)
    {
        storeInts[0] = a;
        counter++;
    }
    else
    {
        for (int i = 0; i < counter && counter2 != 1; i++)
            if (a <= storeInts[i])

```

```

        {
            for (int j = counter - 1; j >= i; j--)
                storeInts[j+1] = storeInts[j];

            storeInts[i] = a;

            counter2++;
        }

        if (a > storeInts[counter - 1])
            storeInts[counter] = a;

        counter++;
    }

}

//-----
// Displays the current contents of the Sorter.
//-----
public void display (PrintStream ps)
{
    for (int i = 0; i < counter; i++)
        ps.print(storeInts[i] + " ");

    System.out.println();
}

//-----
// Resets the Sorter to be empty.
//-----
public void reset()
{
    storeInts = new int [50];
    counter = 0;
}
}

////////////////////////////////////

```