```java
import java.util.Scanner;

public class assign
{

        static void print(int arr[])
        {
                int n=arr.length;
                for(int i=0;i<n;i++)
                {
                        System.out.print(arr[i]+" ");
                }
                System.out.println();
        }

        static void shell(int arr[])
        {
                int n=arr.length;
                for(int gap=n/2;gap>0;gap/=2)
                        for(int i=gap;i<n;i+=1)
                        {
                                int temp=arr[i];
                                int j;
                                for(j=i;j>=gap && arr[j-gap]>temp;j-=gap)
                                        arr[j]=arr[j-gap];
                                arr[j]=temp;
                        }
        }
        static void input(int arr[],int n)
        {
                //int n=arr.length;
                Scanner sc=new Scanner(System.in);
                for(int i=0;i<n;i++)
                        arr[i]=sc.nextInt();
        }
        public static void main(String arg[])
        {

                //int arr[]={10,30,50,60,20,40,80,70};
                //int n=arr.length;
                int arr[] = new int[8];
                int n=arr.length;
                System.out.println("Enter the values of array:");
                input(arr,n);
                System.out.println("Array before sorting:");
                print(arr);
                shell(arr);
                System.out.println("Array after sorting:");
                print(arr);


        }

}
```