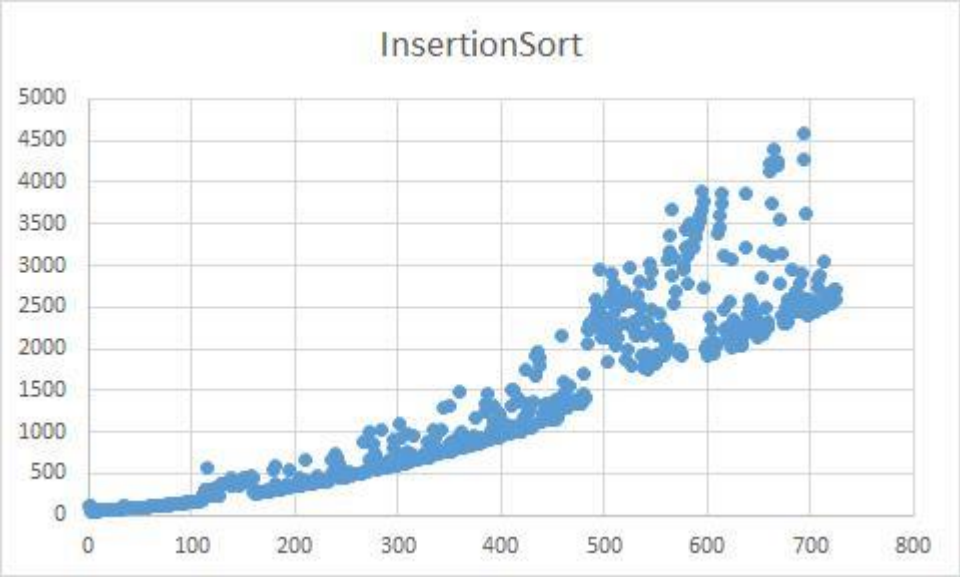
Insertion- sort

```java
/**
 * insertionSort recibe una arreglo de n elementos y lo devuelve ordenado
 *
 * @param int[]
 * @return int[]
 */
public static int[] insertionSort(int[] arr){
    for(int i = 0; i < arr.length; i++){// C1*n+c2
        for(int j = i; j > 0; j--){//(c3*n+c4)*n
            if(arr[j] < arr[j-1]){//c5
                int temp = arr[j];
                arr[j] = arr[j-1];
                arr[j-1] = temp;
            }else{//c6
                break;
            }
        }
    }
    return arr;
}/*T(n) = c1*n+c2+c3n^2+c4n+c5
= O(c1*n+c2+c3n^2+c4*n+c5)
= O(c1*n+c3n^2+c4*n)
= O(c3n^2)
= O (n^2)
```



Suma elementos

```java
/**
 * sumaArreglo realiza la suma de los elementos de un arreglo
 * y la devuelve
 * @param int[]
 * return int
 */
public static int sumaArreglo(int[]  arr){
    int suma = 0;//c1
    for(int i = 0;  i < arr.length; i++){//c2 + c3*n
        suma += arr[i];//c4*n
    }
    return suma;//c5
    //T(n)= c1+c2+c3*n+c+c4*n+c5
    //O(n)
}
```