| Lista Ordenada Ascedentemente |              |               |              |               |              |  |
|-------------------------------|--------------|---------------|--------------|---------------|--------------|--|
|                               |              | n             |              |               |              |  |
|                               | L.)          | 50            |              | 500           |              |  |
| Prueba                        | Tiempo (seg) | Comparaciones | Tiempo (seg) | Comparaciones | Tiempo (seg) |  |
| 1                             | 3.86E-05     | 49            | 0.00017285   | 499           | 0.00069046   |  |
| 2                             | 3.89E-05     | 49            | 9.27E-05     | 499           | 0.00076723   |  |
| 3                             | 3.79E-05     | 49            | 9.49E-05     | 499           | 0.000741     |  |
| 4                             | 3.70E-05     | 49            | 0.00010562   | 499           | 0.00072694   |  |
| 5                             | 3.79E-05     | 49            | 9.51E-05     | 499           | 0.00072336   |  |
| Promedio                      | 3.80516E-05  | 49            | 0.000112247  | 499           | 0.000729799  |  |

|          | Lista Ordenada Ascedentemente |               |              |               |              |  |  |
|----------|-------------------------------|---------------|--------------|---------------|--------------|--|--|
|          |                               |               |              | n             |              |  |  |
|          | 5                             | 50            |              | 500           |              |  |  |
| Prueba   | Tiempo (seg)                  | Comparaciones | Tiempo (seg) | Comparaciones | Tiempo (seg) |  |  |
| 1        | 0.000272751                   | 231           | 0.00414538   | 3160          | 0.35920763   |  |  |
| 2        | 0.0001719                     | 230           | 0.0026176    | 3161          | 0.21693945   |  |  |
| 3        | 0.000222206                   | 232           | 0.00251245   | 3159          | 0.25161219   |  |  |
| 4        | 0.000145674                   | 232           | 0.00243378   | 3153          | 0.207412     |  |  |
| 5        | 0.000150442                   | 232           | 0.0025413    | 3155          | 0.22198725   |  |  |
| Promedio | 0.000192595                   | 231.4         | 0.002850103  | 3157.6        | 0.251431704  |  |  |

|               | BubbleSort                      |              |               |              |               |  |
|---------------|---------------------------------|--------------|---------------|--------------|---------------|--|
|               | Lista Ordenada Descendentemente |              |               |              |               |  |
|               |                                 | n            |               |              | n             |  |
| 5000          |                                 |              | 50            | 500          |               |  |
| Comparaciones |                                 | Tiempo (seg) | Comparaciones | Tiempo (seg) | Comparaciones |  |
| 4999          |                                 | 0.00044942   | 2450          | 0.07737923   | 249500        |  |
| 4999          |                                 | 0.00042129   | 2450          | 0.04632831   | 249500        |  |
| 4999          |                                 | 0.00084519   | 2450          | 0.04612064   | 249500        |  |
| 4999          |                                 | 0.00042462   | 2450          | 0.04853559   | 249500        |  |
| 4999          |                                 | 0.00074482   | 2450          | 0.05050039   | 249500        |  |
| 4999          |                                 | 0.000577068  | 2450          | 0.053772831  | 249500        |  |

|               | Merge Sort |              |               |                |               |
|---------------|------------|--------------|---------------|----------------|---------------|
|               |            |              | Lista (       | Ordenada Desce | ndentemente   |
|               |            |              |               |                | n             |
| 5000          |            |              | 50            |                | 500           |
| Comparaciones |            | Tiempo (seg) | Comparaciones | Tiempo (seg)   | Comparaciones |
| 36654         |            | 0.00044513   | 232           | 0.00234175     | 3157          |
| 36611         |            | 0.00014949   | 231           | 0.00231194     | 3164          |
| 36611         |            | 0.00064421   | 232           | 0.00235057     | 3164          |
| 36641         |            | 0.00029898   | 231           | 0.00225949     | 3157          |
| 36549         |            | 0.00032353   | 231           | 0.00230527     | 3162          |
| 36613.2       |            | 0.000372267  | 231.4         | 0.002313805    | 3160.8        |

|              |               |              |               | Lista Desorde |
|--------------|---------------|--------------|---------------|---------------|
|              |               |              |               |               |
| 5000         |               |              | 50            | !             |
| Tiempo (seg) | Comparaciones | Tiempo (seg) | Comparaciones | Tiempo (seg)  |
| 6.80173206   | 24955008      | 0.00040412   | 2205          | 0.03866196    |
| 6.49356651   | 24950009      | 0.00027514   | 1666          | 0.04042864    |
| 5.87891889   | 24960007      | 0.00034118   | 2254          | 0.05917621    |
| 5.89007974   | 24960007      | 0.00032377   | 2058          | 0.03609085    |
| 5.53164649   | 24965006      | 0.00034642   | 2156          | 0.04542446    |
| 6.119188738  | 24958007.4    | 0.000338125  | 2067.8        | 0.043956423   |

|              |               |              |               | Lista Desorde |
|--------------|---------------|--------------|---------------|---------------|
|              |               |              |               |               |
| 5000         |               |              | 50            | !             |
| Tiempo (seg) | Comparaciones | Tiempo (seg) | Comparaciones | Tiempo (seg)  |
| 0.2593534    | 36666         | 0.00025249   | 232           | 0.0026474     |
| 0.21273565   | 36642         | 0.00015926   | 231           | 0.0023756     |
| 0.34367919   | 36708         | 0.00013542   | 232           | 0.00431633    |
| 0.19494724   | 36624         | 0.00016832   | 231           | 0.00237393    |
| 0.2202518    | 36682         | 0.00020385   | 232           | 0.00503016    |
| 0.246193457  | 36664.4       | 0.000183868  | 231.6         | 0.003348684   |

| nada          |              |               |  |  |  |  |  |
|---------------|--------------|---------------|--|--|--|--|--|
| n             |              |               |  |  |  |  |  |
| 500           | 5            | 0000          |  |  |  |  |  |
| Comparaciones | Tiempo (seg) | Comparaciones |  |  |  |  |  |
| 243013        | 4.48632884   | 24630073      |  |  |  |  |  |
| 246506        | 5.96367645   | 24435112      |  |  |  |  |  |
| 241516        | 4.31404328   | 24430113      |  |  |  |  |  |
| 217564        | 4.25910091   | 24460107      |  |  |  |  |  |
| 240019        | 4.2908926    | 24390121      |  |  |  |  |  |
| 237723.6      | 4.662808418  | 24469105.2    |  |  |  |  |  |

| nada          |              |               |
|---------------|--------------|---------------|
| n             |              |               |
| 500           | 53           | 5000          |
| Comparaciones | Tiempo (seg) | Comparaciones |
| 3174          | 0.23440695   | 36680         |
| 3164          | 0.30937839   | 36701         |
| 3159          | 0.22253919   | 36736         |
| 3152          | 0.21436095   | 36609         |
| 3166          | 0.19759083   | 36729         |
| 3163          | 0.23565526   | 36691         |