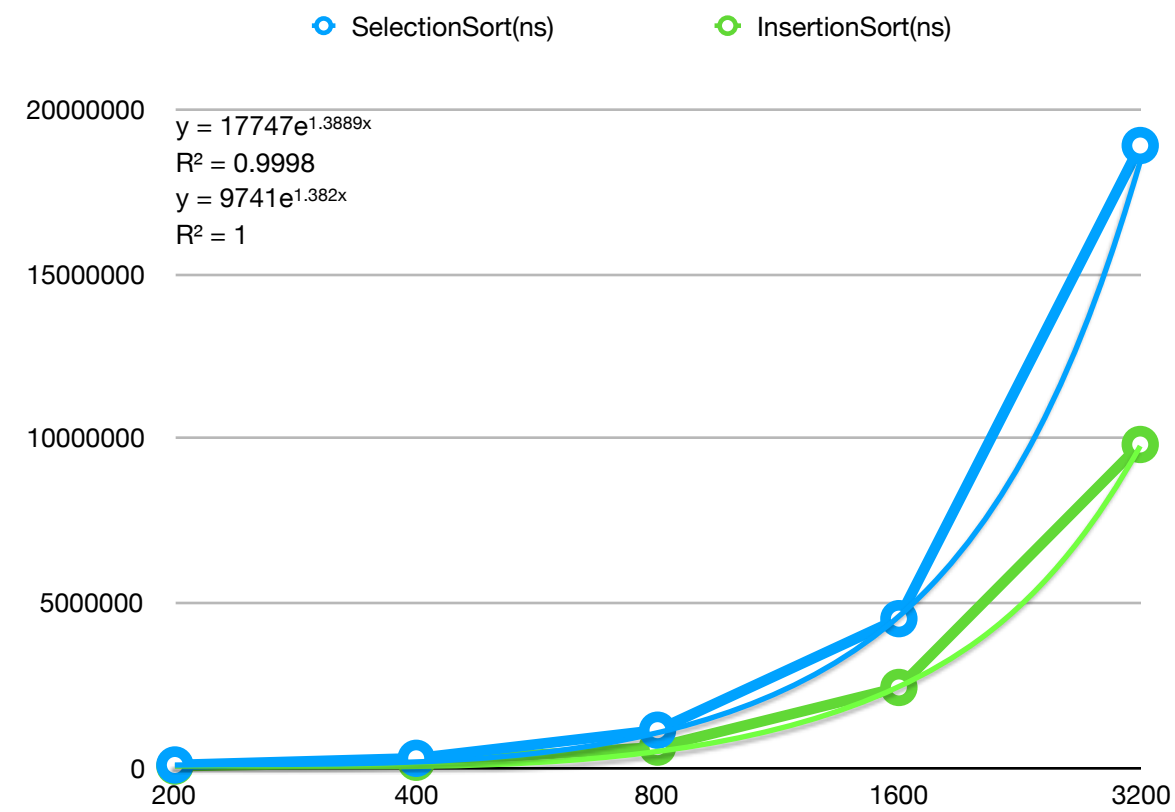
```
Runing time of reverse-ordered arrays:
n       SelectionSort:                  InsertionSort:
200         73673.08                    38629.74
400        276268.98                   155931.90
800       1130468.28                   615345.24
1600       4518849.84                  2428815.22
3200      18894461.08                  9810912.18
```

Running time of reverse-ordered arrays:

| N | SelectionSort(ns) | InsertionSort(ns) |
|---|---|---|
| 200 | 73673.08 | 38629.74 |
| 400 | 276268.98 | 155931.90 |
| 800 | 1130468.28 | 615345.24 |
| 1600 | 4518849.84 | 2428815.22 |
| 3200 | 18894461.08 | 9810912.18 |

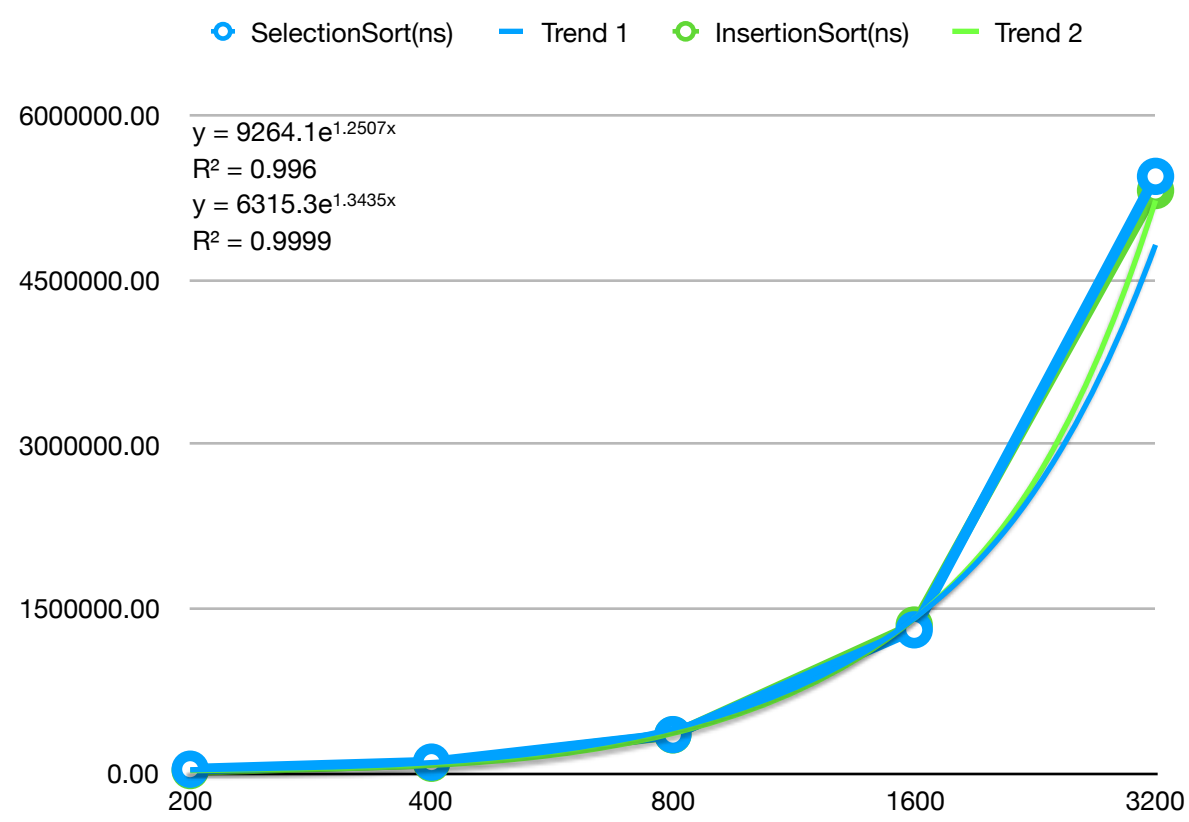



For the chart of SelectionSort, the trend line is y=17747e^(1.3889x), and e^1.3889=4.01, thus y≈17747*4^x;
For the chart of InsertionSort, the trend line is y=9741e^(1.382x), e^1.382=3.98, thus y≈9741*4^x;
Therefore, for the reversed-order arrays, when n is expanded by twice, the time or both SelectionSort and InsertionSort will expend by 4 times.

```
Runing time of random arrays:
n       SelectionSort:                  InsertionSort:
200         37472.00                    24693.32
400        102015.00                    91501.00
800        352536.34                   349952.02
1600       1307840.04                  1351327.56
3200       5441193.52                  5312081.44
```

Running time of random arrays

| N | SelectionSort(ns) | InsertionSort(ns) |
|---|---|---|
| 200 | 37472.00 | 24693.32 |
| 400 | 102015.00 | 91501.00 |
| 800 | 352536.34 | 349952.02 |
| 1600 | 1307840.04 | 1351327.56 |
| 3200 | 5441193.52 | 5312081.44 |

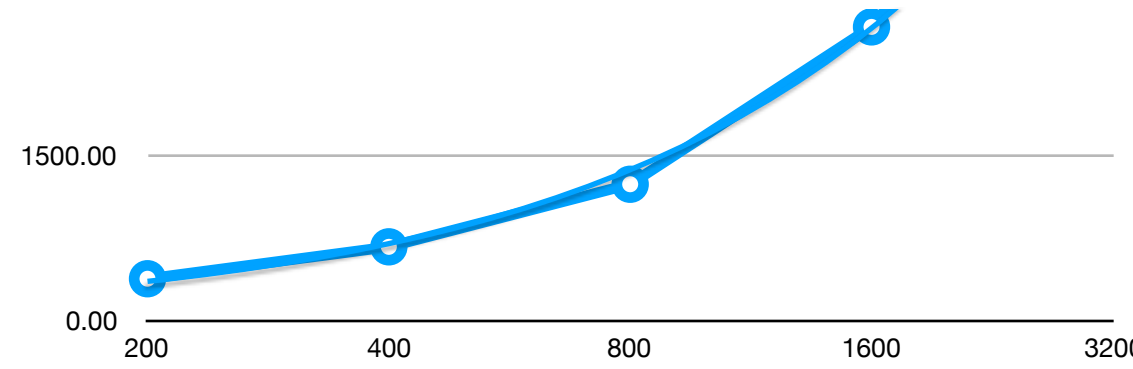


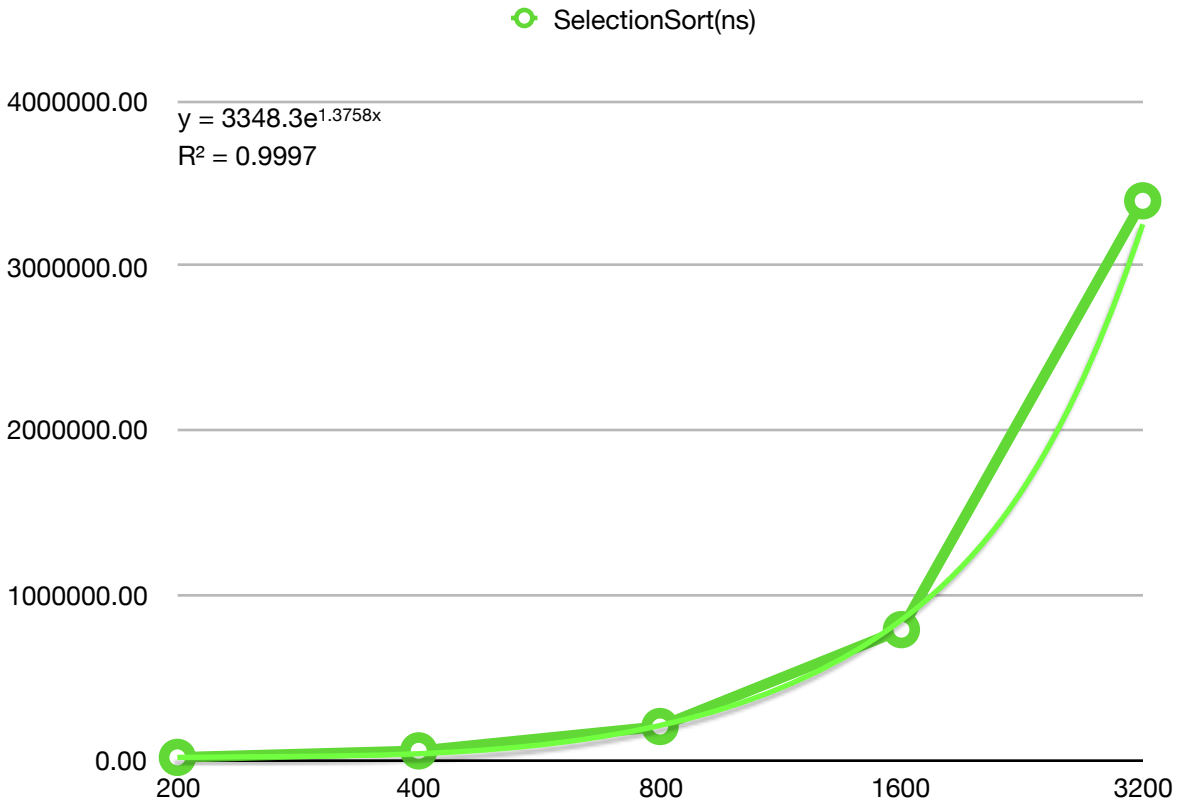

For the chart of SelectionSort, the trend line is y=6315.3e^(1.3435x), and e^1.3889=3.83≈4;
For the chart of InsertionSort, the trend line is y=6264.1e^(1.2507x), e^1.382=3.50;
Therefore, for the random arrays, when n is expanded by twice, the time for both SelectionSort and InsertionSort will expend by 4 times.

```
Runing time of ordered arrays:
n       SelectionSort:                  InsertionSort:
200         13481.26                      380.30
400         53088.22                      679.20
800        201044.92                     1241.56
1600        789844.78                     2675.82
3200       3395430.74                     5348.40
```

Running time of ordered arrays

| N | SelectionSort(ns) | InsertionSort(ns) |
|---|---|---|
| 400 | 53088.22 | 671.20 |
| 800 | 201044.92 | 1241.56 |
| 1600 | 789844.78 | 2675.82 |
| 3200 | 3395430.74 | 5348.40 |




For the chart of SelectionSort, the trend line is y=3348.3.3e^(1.3758x), and e^1.3758=3.96≈4;
For the chart of InsertionSort, the trend line is y=182.93e^(0.667x), e^0.667=1.95≈2;
Therefore, for the ordered arrays, when n is expanded by twice, the time for InsertionSort will expend by twice, while for the SelectionSort, it will expend by 4 times.