Randomly Distributed Data							Nearly Sorted Distributed Data					
Array length	Bubble	Selection	Insertion	Merge	Quick		Array length	Bubble	Selection	Insertion	Merge	Quick
10	1	1	0	2	1		10	0	0	0	0	0
100	108	68	39	37	26		100	2	7	0	2	1
1000	1270	666	686	117	102		1000	3	360	3	32	14
10000	95662	19537	6390	977	590		10000	34	47605	29	374	166
100000	11399952	1900348	665373	9904	7360		100000	349	11571532	299	4272	1872

Reversed Distributed Data							Few Unique Values of Data					
Array length	Bubble	Selection	Insertion	Merge	Quick		Array length	Bubble	Selection	Insertion	Merge	Quick
10	1	0	0	0	0		10	0	0	0	0	0
100	36	3	1	2	1		100	15	3	1	4	2
1000	659	332	123	29	11		1000	401	211	56	45	22
10000	48400	32952	12424	340	138		10000	80443	19377	4742	499	258
100000	4847692	3277548	1347610	3945	1670		100000	10263393	1906378	488525	5653	2931

Sort time for Randomly Distributed Data

Time (nanoseconds/1000) vs Array length

Bubble: $0.0207x^{1.71}$ $R^2 = 0.991$
Selection: $0.0347x^{1.5}$ $R^2 = 0.989$
Insertion: $0.0538x^{1.37}$ $R^2 = 0.975$
Merge: $0.348x^{0.881}$ $R^2 = 0.986$
Quick: $0.193x^{0.909}$ $R^2 =$

Sort time for Nearly Sorted Distributed Data

Time (nanoseconds/1000) vs Array length

Bubble: $0.0309x^{0.778}$ $R^2 = 0.933$
Selection: $3.27E\text{-}04x^{2.08}$ $R^2 = 0.995$
Insertion: $2.98E\text{-}03x^{0.999}$ $R^2 = 1$
Merge: $0.0136x^{1.11}$ $R^2 = 0.999$
Quick: $7.04E\text{-}03x^{1.09}$ $R^2 = 1$

Sort time for Reversed Distributed Data

- **Bubble**
- 0.0158x^1.65 R² = 0.993
- **Selection**
- 2.94E-04x^2.01 R² = 1
- **Insertion**
- 8.73E-05x^2.04 R² = 1
- **Merge**
- 0.0138x^1.1 R² = 1
- **Quick**
- 6.8E-03x^1.08 R² = 1

Time (nanoseconds/1000) vs Array length

Sort time for Few Unique Values of Data

- **Bubble**
- 9.8E-04x^1.98 R² = 0.991
- **Selection**
- 3.65E-04x^1.94 R² = 1
- **Insertion**
- 1.35E-04x^1.9 R² = 0.999
- **Merge**
- 0.0318x^1.05 R² = 1
- **Quick**
- 0.0152x^1.06 R² = 1

Time (nanoseconds/1000) vs Array length