number of eleme	10	100	1000	5000	10000	25000	
bubble sort	0	2005200	174950100	2830926600	14353892400	121941010200	
insertion sort	0	0	48009700	1549098000	6076050600	39173094800	
merge sort	0	999500	4998400	23002700	39009200	151990200	
terative merge s	0	998700	3967000	19043300	41947700	130949200	
quick sort	0	0	2006500	8995400	23014500	78010800	
shell sort	0	0	2045500	13999500	32039000	84931500	
Pig O Compleyity						bubble sort	O(n^2)
Big-O Complexity						insertion sort	O(n^2)
bubble sort — insertion sort — merge sort — iterative merge sort —						merge sort	O(nlogn)
		quick sort	shell sort			iterative merge s	O(nlogn)
125000000				//	quick sort	O(nlogn)	
1250000	100					shell sort	O(nlogn)
100000000					//		
_		//		/	// ,		
750000	000 —						
75000000 50000000 50000000							
50000000							
25000000							
	0	100	1000 5000	10000	05000		
_	10	100	1000 5000	10000	25000		
number of elements							