

Time Complexities of sorting algorithms

Algorithm	Time Complexity		
	Best case	Average case	Worst case
Bubble Sort	$\Omega(n)$	$\theta(n^2)$	$O(n^2)$
Bucket Sort	$\Omega(n+k)$	$\theta(n+k)$	$O(n^2)$
Heap Sort	$\Omega(n \log(n))$	$\theta(n \log(n))$	$O(n \log(n))$
Insertion Sort	$\Omega(n)$	$\theta(n^2)$	$O(n^2)$
Merge Sort	$\Omega(n \log(n))$	$\theta(n \log(n))$	$O(n \log(n))$
Quick Sort	$\Omega(n \log(n))$	$\theta(n \log(n))$	$O(n^2)$
Radix Sort	$\Omega(nk)$	$\theta(nk)$	$O(nk)$
Selection Sort	$\Omega(n^2)$	$\theta(n^2)$	$O(n^2)$