

Algorithm	Best-case	Average-case	Worst-case	Inplace Algorithm
Merge-sort	$\Omega(n \log(n))$	$O(n \log(n))$	$O(n \log(n))$	Not Inplace
Insertion-sort	$\Omega(n)$	$\Theta(n^2)$	$O(n^2)$	Inplace
Bubble-sort	$\Omega(n)$	$\Theta(n^2)$	$O(n^2)$	Inplace
Selection-sort	$O(n^2)$	$O(n^2)$	$O(n^2)$	Inplace
Heap-sort	$O(n \log(n))$	$O(n \log(n))$	$O(n \log(n))$	Inplace
Quick-sort	$O(n \log(n))$	$O(n \log(n))$	$O(n^2)$	Inplace
Bucket-sort	$\Omega(n + k)$	$\Theta(n + k)$	$O(n^2)$	Not Inplace
Shell-sort	$\Omega(n \log(n))$	$\Theta(n \log(n)^2)$	$O(n \log(n)^2)$	Inplace
Radix-sort	$\Omega(nk)$	$\Theta(nk)$	$O(nk)$	Not Inplace