

# Sorting summary

	inplace?	stable?	worst	average	best	remarks
<b>selection</b>	✓		$n^2/2$	$n^2/2$	$n^2/2$	N exchanges
<b>insertion</b>	✓	✓	$n^2/2$	$n^2/4$	N	use for small N or partially ordered
<b>shell</b>	✓		?	?	N	tight code, subquadratic
<b>merge</b>		✓	$N \lg N$	$N \lg N$	$N \lg N$	$N \log N$ guarantee, stable
<b>quick</b>	✓		$n^2/2$	$2N \ln N$	$N \lg N$	$N \log N$ probabilistic guarantee fasted in practice
<b>3-way quick</b>	✓		$n^2/2$	$2 N \ln N$	N	improves quicksort in presence of duplicate keys
<b>???</b>	✓	✓	$N \lg N$	$N \lg N$	$N \lg N$	holy grail sorting