

	BFS	DFS	UCS	A*	IDS	Hill Climbing
Time Complexity	$O(b^d)$	$O(b^d)$	$O(b^{(C^*/\varepsilon)})$	$O(b^{(C^*/\varepsilon)})$	$O(b^d)$	$O(bm)$
Space Complexity	$O(b^d)$	$O(b^d)$	$O(b^{(C^*/\varepsilon)})$	$O(b^{(C^*/\varepsilon)})$	$O(bd)$	$O(bd)$
Cross pass	level by level “Wide expansion”	Branch by branch “Long single branch”	Level by level but Lowest path cost first	Lowest f(n) first The f(n) is total (cost +heuristic)	Level by level, but depth-limited	Lowest heuristic function first
Expected speed	slow	fast if solution is deep	The Slowest	Very fast ,Fast than BFS and DFS	Balance combines DFS speed with BFS completness	The fastest
Complete	Complete	Not complete	Complete	complete	Complete	Not Complete
optimal	Optimal if cost the same	Not optimal	optimal	optimal	optimal	Not optimal