Finite Trees | Infinite Trees (or no cycle checking)							
Method	Depth-First Search		Depth-Bounded DFS	Breadth-First Search		Iterative Deepening	
Complete?	Yes	No	No (if l<d) Yes (if l≥d)	Yes	Yes	Yes	Yes
Halts?	Yes	No	Yes	Yes	No	Yes	No
Optimal?	No	No	No	Yes	Yes	Yes	Yes
Time	$O(b^{m-1})$	∞	$O(b^{l-1})$	$O(b^{m-1})$	∞	$O(b^m)$	
Space	$O(bm)$	∞	$O(bl)$	$O(b^{m-1})$	∞	$O(bm)$	

- b: branching factor
- d: depth of optimal solution
- m: maximum depth of tree
- l: depth bound on depth-bounded DFS

(These assume levels of a tree are numbered starting with the root at level 1; the book starts at level 0, so the bounds differ by one in the exponent)