The evaluation function used in the Greedy Search and A\*Search is also called Heuristic function.

In the Greedy search, at each state n, we try to take the biggest bite out of the remaining cost to reach the goal.

Greedy search does not consider the actual cost from the initial state to the current state n.

Before we use the informed search methods, we should have a prior knowledge of the goal node.

In f(n), g(n) is the actual cost we have paid from the start node to the node n, while h(n) is an estimated cost of the cheapest path from n to the goal node.

The physical meaning of f(n) is that it is an estimates the actual cost of the cheapest from the node n to the goal node.

A solution path (i.e. a path from the start node to the goal) through n’ must also go through n.

In general, the heuristic monotonicity (i.e. f-cost never decreases along ant solution path) is kept in A\* search provided that h is admissible.

Given the search algorithm, say A\*, the number of expanded nodes in the search is generally different when we use two different heuristic functionsL: h1 and h2.

IDA\* (Iterative Deepening A\*) can overcome the drawback of A\*