A*

1. Place n_0 in OPEN. compute $\hat{h}(n_0)$ and set $\hat{g}(n_0) = 0$. All other $\hat{g} = \infty$

2. if OPEN is empty, stop (failure)

3. remove from OPEN the vertex with minimal $\hat{f}$, call it n and add it to CLOSED

4. if n is the goal, stop (success): use pointer chain to retrieve the solution path.

5. For each successor s_i of n:

   1. compute $\hat{g}(n) + c(n, s_i)$
   2. if s_i is in OPEN or in CLOSED and $\hat{g}(n) + c(n, s_i) > \hat{g}(s_i)$, skip to next successor
   3. remove s_i from OPEN and CLOSED if present
   4. insert s_i in OPEN and update $\hat{g}(s_i)$ and backpath pointer

6. go to 2

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