- Breadth-first search is a special case of uniform-cost search: When all step costs are equal, g(n) is just a multiple of depth n. Thus,breadth-first search and uniform-cost search would behave the same in this case.

- Breadth-first search, depth-first search, and uniform-cost search are special cases of Greedy Best-First Search:

$$BFS: f(n) = depth(n)$$

$$DFS: f(n) = -depth(n)$$

$$UCS: f(n) = g(n)$$

- Uniform-cost search is a special case of A* search:

$$A * search: f(n) = g(n) + h(n)$$

$$Uniform - costsearch: f(n) = g(n)$$

$Thus, forh(n) = 0, uniformcostsearchwillproducethesameresultasA * search.$

- When is A* complete?
  A* is complete if it retrns a solution in cases where a solution exists and doesn't return a solution when none exist.Also it must work on all possible inputs.

- When does A* end the search process?
  It ends the search process when it finds a goal with the least cost.

- **The heuristic manhatten distance is consistent.**

- **The heuristic misplaced tiles is admissible but not consistent.**