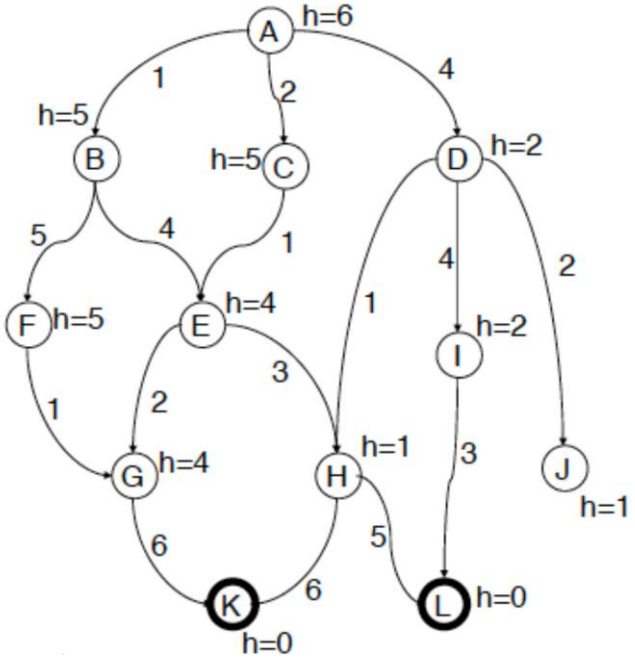
Informed Search

Lab 3

Exercise (greedy best first and A*, from A to the goal)



Modify the program from last class to implement the greedy best first and A* search for this graph. Compare the solution paths. Play with the heuristics and see what different heuristic functions would yield as solutions. Play with weighted A* with different weights and compare.

Today's exercise is quite a bit more difficult than the first two labs. Ask questions when you need to and don't be discouraged.

Homework (A* Vacuum Cleaner)

You should be able to use much of the code from exercise1. You will need to make a few changes though, especially with how to handle the state.

1. The state of the search should be represented with three elements: a state, a path and a cost. Ultimately, cost is defined as the number of moves taken to achieve the goal state from the initial state.
2. While moves and paths resemble those in lab 1, solutions (output) are the path, the cost of the solution and the number of explored nodes.

Challenge: Can you generalize it?