A* Algorithm

Compute the F, G, and H values, and a parent indicator, for each square visited from the start to the finish. Mark things on the OPEN list with a single line in the upper-left corner of the square, and those on the CLOSED list with two lines.

For G, the cost of horizontal or vertical movement is 10, and for diagonal movement is 14. The path may NOT cut through the corner of an obstacle. For H, the cost is the Manhattan distance * 10.