

### 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.

100 10 90	94 14 80		F G H	174 124 50	160 120 40	154 124 30	154 134 20	154 144 10
80 0 80	80 10 70		F G H	154 114 40	140 110 30	140 120 20	140 130 10	140 140 0
	100 20 80		F G H	160 110 50	140 100 40			F G H
140 40 100	120 30 90				140 90 50	134 94 40		F G H
124 44 110	140 40 100	140 50 90	140 60 80	140 70 70	140 80 60	140 90 50	F G H	F G H
134 54 120	160 50 110	154 54 100	154 64 90	154 74 80	154 84 70	154 94 60	F G H	F G H