S L I D I N G   T I L E   P U Z Z L E   P R O B L E M

The sliding-tile puzzle consists of three black tiles, three white tiles, and an empty space in the configuration shown in the following figure:

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+---------------------------+
| B | B | B |   | W | W | W |
+---------------------------+
```

The puzzle has two legal moves with associated costs. A tile can move into an adjacent empty location. This move has a cost of 1. A tile can also hop over one or two other tiles into the empty position. This move has a cost equal to the number of tiles jumped over. The goal is to have all white tiles to the left of all black tiles. The position of the blank is not important.

(a) Propose a heuristic function for solving this problem and show it is admissible;

(b) Write a program which solves this puzzle using A* search algorithm;