Homework 3

Saturday, March 17, 2018 11:21 AM

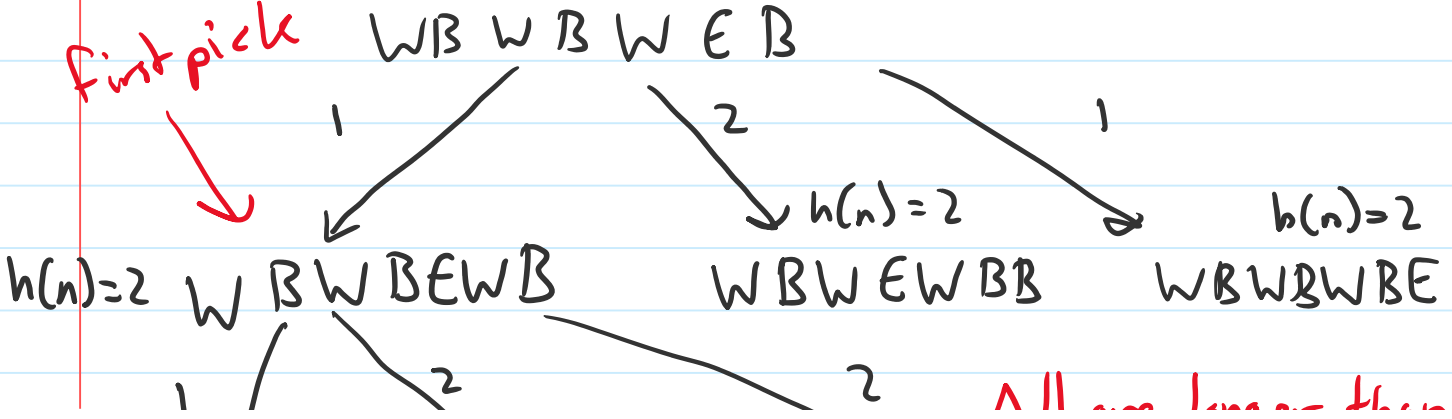
h(n) → number of white tiles misplaced; defined as any white tile to the right of any black tile

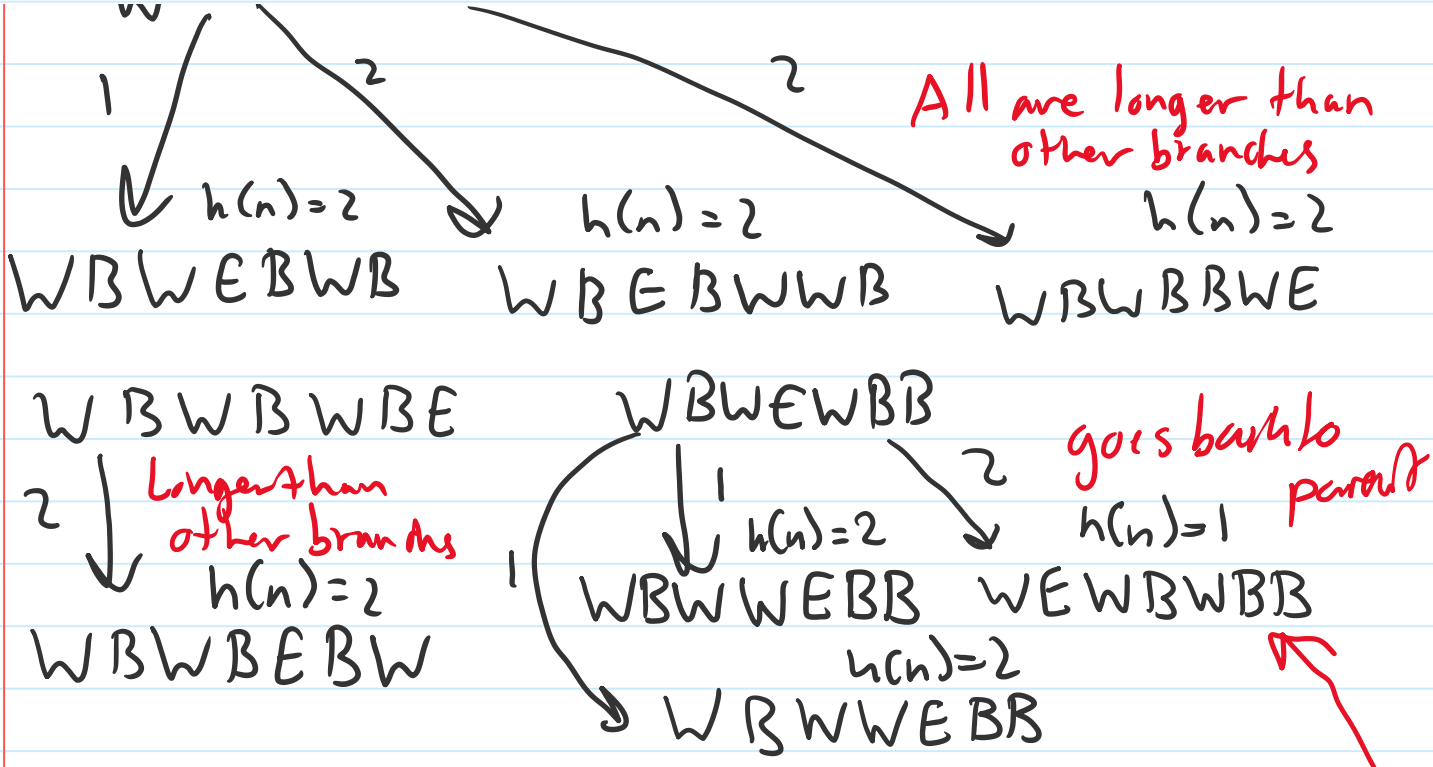
This will never overestimate → if a tile is in the wrong spot, it requires *at minimum* a cost of one to be moved. Therefore, the minimum cost of solution will be equal to white tiles that need to be moved to the left, as every one of those tiles will need to move.

Take an edge case, though, and say moving one black tile can resolve two white tiles:

WBWWEBB

To move the black tile two spaces, you can hop over the white tiles. HOWEVER, this move will have a cost of two, which is equal to h(n).





It will keep expanding nodes, but eventually end up here