Hamming Distance

↑

Admissible

~~Totally~~ Relaxed Problem

4	1	3
2	5	6
	8	7

goal

1	2	3
4	5	6
7	8	

$h_1(n) = 5$

$11 = h^*(n)$

If $h_1(n)$ & $h_2(n)$ both are admissible and $h_1(n) \leq h_2(n)$ then $h_2(n)$ is more preffered as it is more accurate.

Manhattan Distance

~~Partially~~ Relaxed

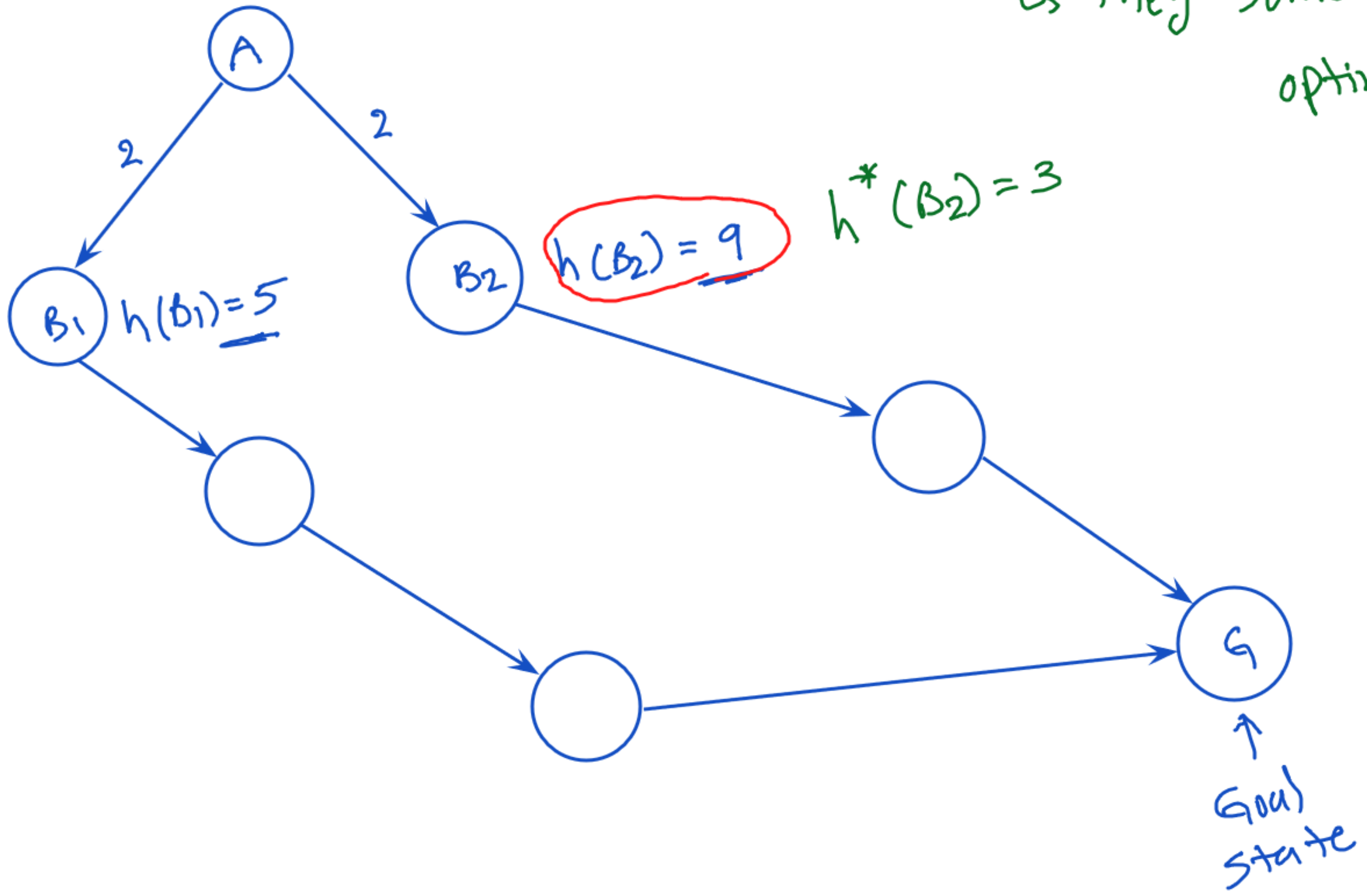
$1+1+0+2+2+2$

$h_2(n) = 8$

Admissible: The heuristic f^n $h(n)$ is admissible if $h^*(n)$ is the actual cost to reach from n^{th} state to goal state & $h(n) \leq h^*(n)$

Why inadmissible heuristic f^n are not useful?

↳ They sometimes eliminate the optimal solutions.



1 Graph Search

→ Best First: combination of BFS & DFS

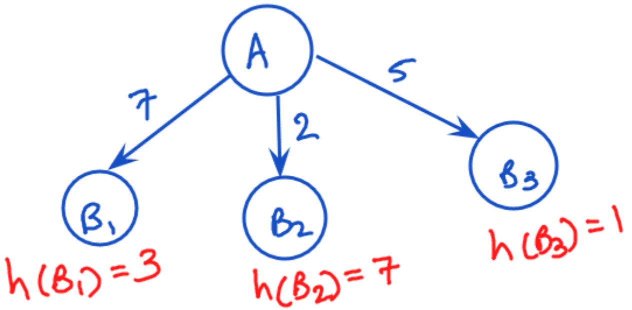
☆ Algorithm 'A'

↳ special case: A*

2 Local Search

① Hill Climbing

② Simulated Annealing



UCS: B_2

Best First: B_3

Tic Tac Toe = ?

8 puzzle game = 9!

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