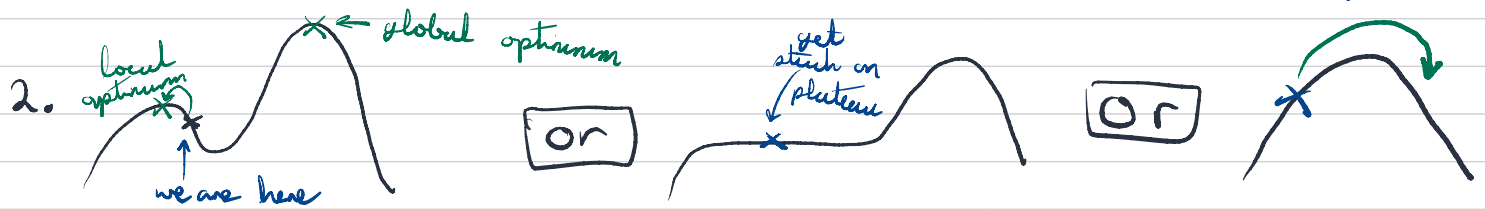


1. state 2 since has the highest value



3.
$$e^{\frac{h(n') - h(n)}{T}} \left\{ \begin{array}{l} \text{new value} \\ \text{old value} \end{array} \right\} \text{probability of adoption if not improvement (when maximizing)}$$

$h(n) = 87 \leftarrow \text{current assignment}$
 $h(n') = 66 \leftarrow \text{new assignment}$
 $T = 6$

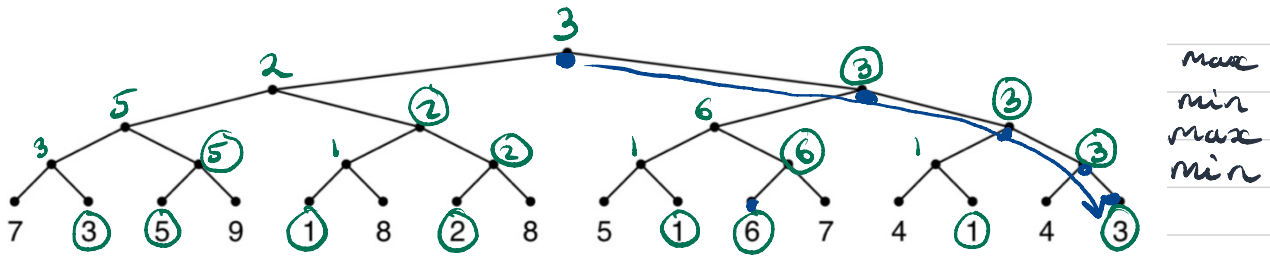
$$e^{\frac{66 - 87}{6}} = e^{-\frac{21}{6}} \approx \underline{\underline{0.03}}$$

4. (a) s_3

(b) $s_1 = \text{acd} \text{ badeb}$
 $s_5 = \text{dda} \text{ addaa}$ $\left\{ \begin{array}{l} \text{acdaddaa} \\ \text{dda badeb} \end{array} \right.$

5. • Not guaranteed to be optimal since minimax is only optimal when the opponent is playing optimally.
 • Guaranteed to be complete iff tree is finite

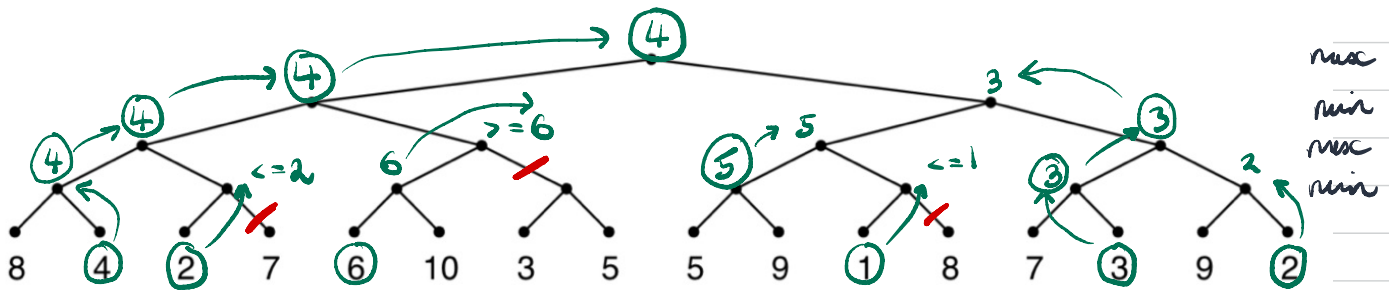
6.



$(R) \rightarrow R \rightarrow R \rightarrow R$

expect utility of 3

7.



take left move expecting utility of 4