Perfect Recall

Definition

An extensive game form has **perfect recall** if for each player i, for each information set $I_i \in \mathcal{I}_i$ and for each $h, h' \in I_i$

- there does not exist $\tilde{h} \neq \varnothing$ such that $h = (h', \tilde{h})$ or $h' = (h, \tilde{h})$ and
- if there exists $I_i' \in \mathcal{I}_i$ such that there exists $\tilde{h} \in I_i', \hat{h} \neq \varnothing$ such that $h = (\tilde{h}, \hat{h})$ then there exists $\tilde{h}' \in I_i', \hat{h}' \neq \varnothing$ such that $h' = (\tilde{h}', \hat{h}')$ and the action taken at I_i' is the same for both h and h'.