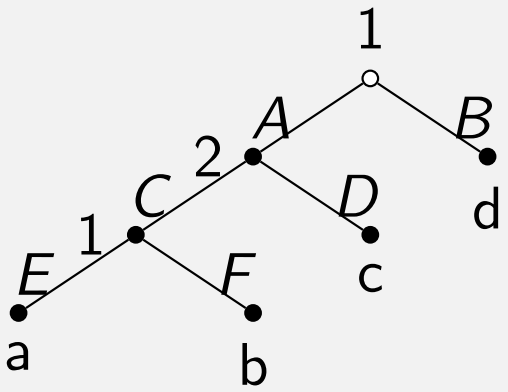
Reduced Strategic Form of Extensive Games

Definition

Let $\Gamma = \{N, H, P, (\succeq_i)\}$ be an extensive game with perfect information and let $\{N, (S_i), (\succeq_i')\}$ be its strategic form. For any $i \in N$ define the strategies $s_i \in S_i$ and $s_i' \in S_i$ of player i to be equivalent if for each $s_{-i} \in S_{-i}$ we have $(s_i, s_{-i}) \sim_j' (s_i', s_{-i})$ for all $j \in N$. The reduced strategic form of Γ is the strategic game $\{N, (S_i'), (\succeq_i'')\}$ in which for each $i \in N$ each set S_i' contains one member of each set of equivalent strategies in S_i and $\succeq_i''$ is the preference ordering over $\times_{j \in N} S_j'$ induced by $\succeq_i'$.



	AC	AD
(A, ACE)	a	c
(A, ACF)	b	c
(B, ACE)	d	d

If $a \neq b$

	AC	AD
(A, ACE)	a	c
(B, ACE)	d	d

If $a = b$