Example: A game of perfect information. Each information set consists of a single node.

Game $\Gamma_1$
Example: Matching Pennies with sequential play. (2\textsuperscript{nd} mover advantage)

\[
\begin{array}{c}
\text{player 1} \\
/ \quad / \\
\text{tails} \quad \text{heads} \\
\downarrow \quad \downarrow \\
\text{player 2} \\
/ \quad / \\
\text{tails} \quad \text{heads} \\
\downarrow \quad \downarrow \\
1, -1 \\
-1, 1 \\
\end{array}
\]

[player 2 has four possible strategies]
A strategy is a specification of what action a player chooses at each of his/her information sets.

Information sets containing several nodes can capture simultaneous-move games, where players move once and at the same time.
• Any extensive form game can be modeled as a normal form game where players simultaneously choose action plans.

• Any normal form game can be modeled as a simultaneous-move extensive form game.

• There is a unique normal-form representation of an extensive-form game. There may be several extensive form game trees for the same normal form game.

• Incomplete information – uncertainty about payoffs at the terminal nodes.

• Imperfect information – uncertainty about where we are in the game tree.

• Imperfect information is more general than incomplete info., because we can write nature into the game tree.
Most games assume **perfect recall**, but not all.
Example: A game of imperfect information. This game could have been derived from a game of perfect but incomplete information.