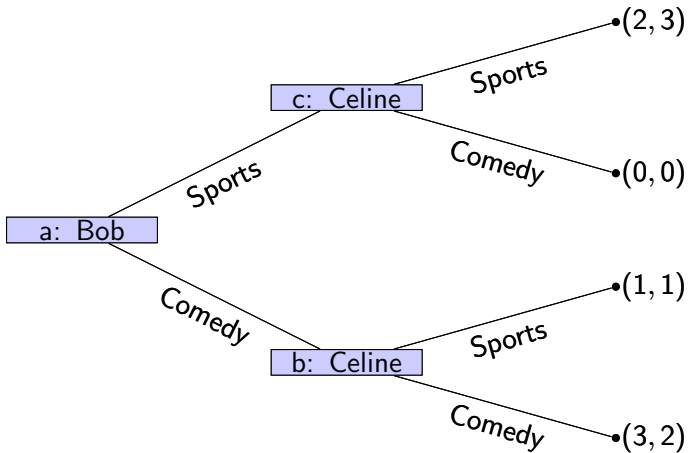


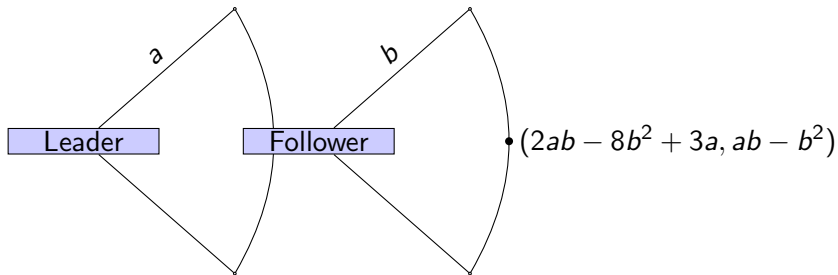
Extensive Form Games

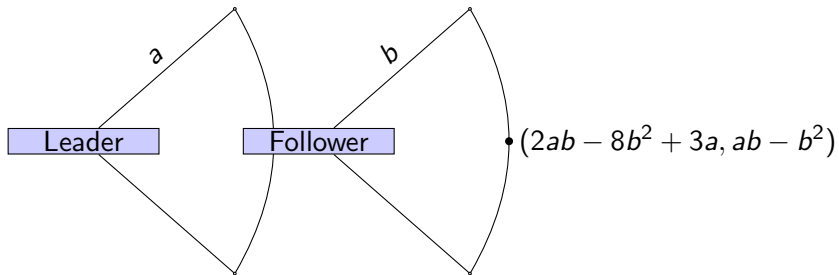
Game Theory

Vincent Knight

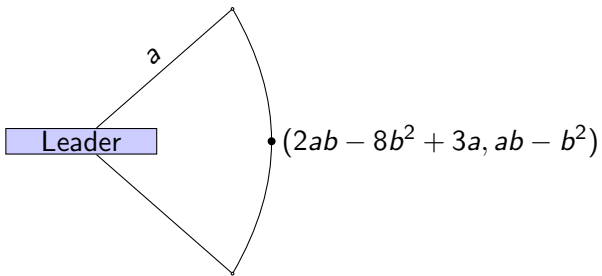


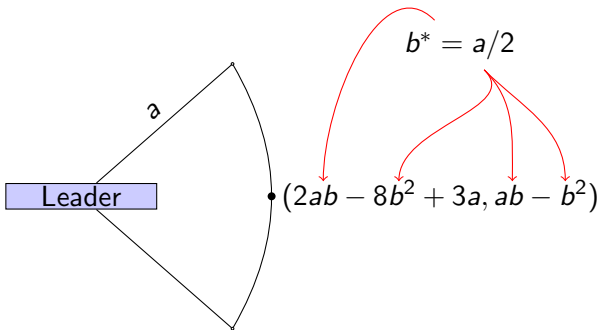
- ▶ **Sequential rationality:** An optimal strategy for a player should maximise that player's expected payoff, conditional on every information set at which that player has a decision.
- ▶ **Backward induction:** This is the process of analysing a game from back to front. At each information set we remove strategies that are dominated.

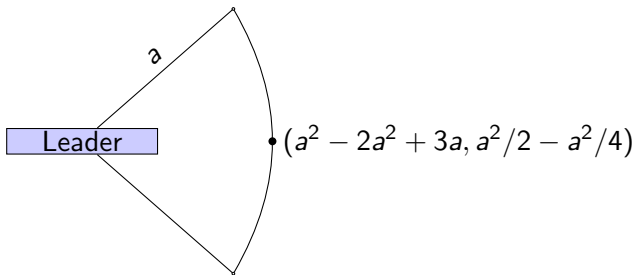




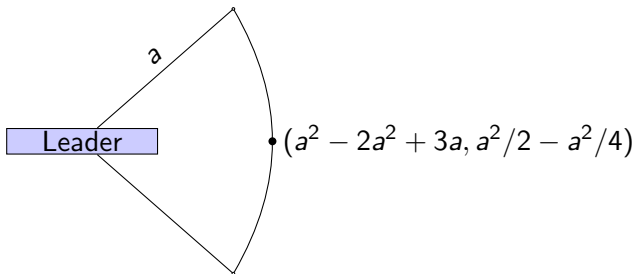
$$\frac{d}{db}(ab - b^2) = 0 \Rightarrow b^* = \frac{a}{2}$$







$$\frac{d}{da}(-a^2 + 3a) = 0 \Rightarrow a^* = \frac{2}{3}$$



$$\frac{d}{da}(-a^2 + 3a) = 0 \Rightarrow a^* = \frac{2}{3}$$

$$(a^*, b^*) = (2/3, 2/6)$$