A strategy is a list of choices, one for each decision node of that player. Hence the strategies for each player are

$$\text{Player 1:} \quad LW, LE, RW, RE$$

$$\text{Player 2:} \quad ac, ad, ae, bc, bd, be$$

This might be unintuitive. Consider strategy LW. If L is played, then the choice between W and E seems irrelevant – that node will not be reached. In such a case, think of W as still being part of the strategy as a *contingency*, just in case that node is reached by some terrible mistake.

The reduced-form then takes all of these strategies and turns it into a payoff matrix. Note that LW and LE rows have the same payoffs. This is a consequence of the seeming redundancy that comes from specifying LW and LE as unique strategies, even though, again, choosing L renders the choice between W and E irrelevant.

	ac	ad	ae	bc	bd	be
LW	$\mathbf{2}, \mathbf{1}$	$2, \mathbf{1}$	$\mathbf{2}, \mathbf{1}$	$\mathbf{4}, 0$	$\mathbf{4}, 0$	$\mathbf{4}, 0$
LE	$\mathbf{2}, \mathbf{1}$	$2, \mathbf{1}$	$\mathbf{2}, \mathbf{1}$	$\mathbf{4}, 0$	$\mathbf{4}, 0$	$\mathbf{4}, 0$
RW	$\mathbf{2}, 0$	$\mathbf{3}, \mathbf{2}$	$1, \mathbf{2}$	$2, 0$	$3, \mathbf{2}$	$1, \mathbf{2}$
RE	$\mathbf{2}, 0$	$\mathbf{3}, 2$	$0, \mathbf{3}$	$2, 0$	$3, 2$	$0, \mathbf{3}$

The pure-strategy Nash equilibria are: (LW, ac), (LW, ae), (LE, ac), (LE, ae), (RW, ad).

Now for backward-induction. Start by comparing terminal nodes.

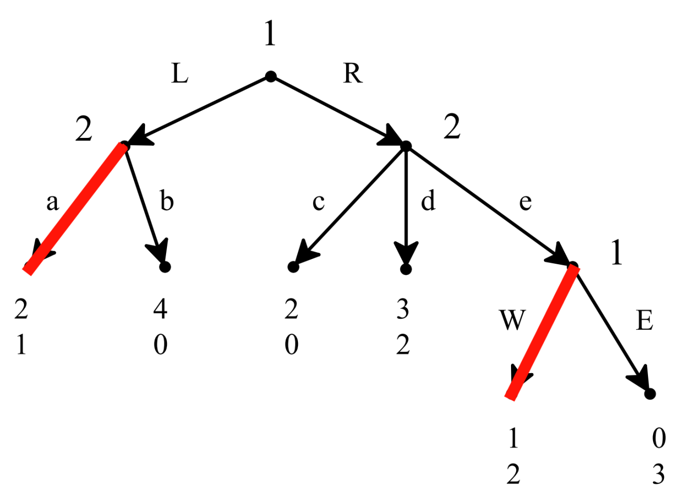

FIGURE 1: Player 2 would rather play a than b because $1 > 0$; and Player 1 would rather play W than E because $1 > 0$.

The R node for Player 2 is key, because playing either d or e is rational for Player 2 (because $2 > 0$). Hence we consider both cases separately.

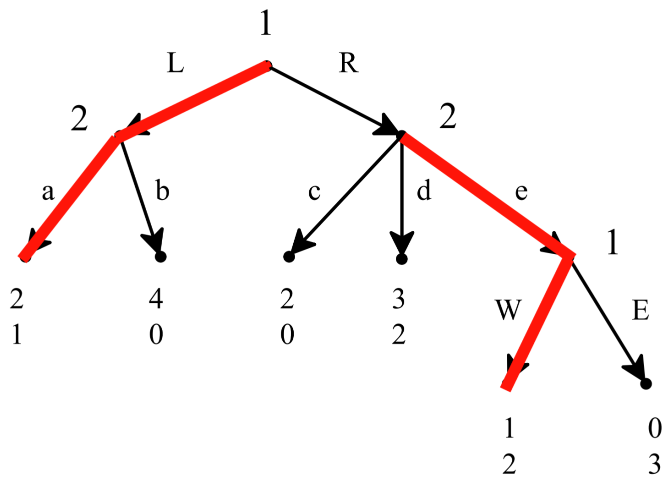

FIGURE 2: Suppose Player 2 plays e. Then it is rational for Player 1 to choose L because $2 > 1$. Hence one backward-induction solution is (LW, ae).

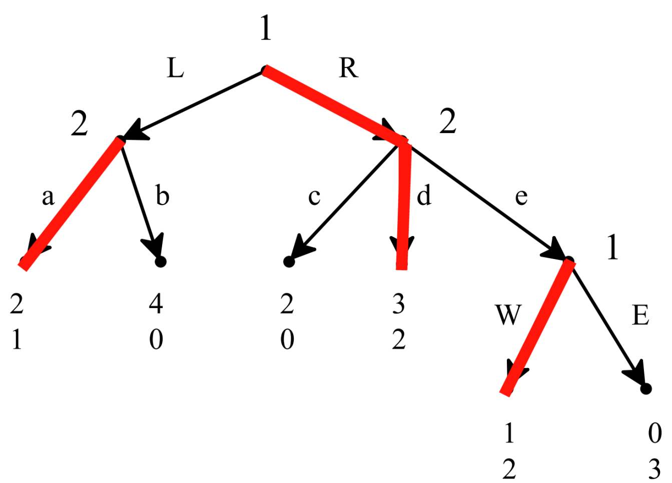

FIGURE 3: Suppose Player 2 plays d. Then it is rational for Player 1 to choose R because $3 > 2$. Hence the other backward-induction solution is (RW, ad).

Note that every backward-induction solution of a perfect-information game is a Nash equilibrium of the associated strategic form; but not all Nash equilibria are backward-induction solutions. Hence we can consider backward-induction solutions to be a *refinement* of Nash equilibrum. The Nash equilibria that are not backward-induction solutions are not *credible*. For example, (LW, ac) is not credible because Player 2 would never choose c if Player 1 were to choose W.