

Case $N = 3$ is illustrated in the adjacent figure. Probabilities are equal in every intersection (blue dot ●)

The case $N = 4$ can be solved from a similar decision tree (on the next page).

If you hire at stage k , you get one of the possible persons corresponding to the k^{th} number in the final state (triangle). The expected utility is the average over all the possible persons in that branch.

If you reject at stage k , the expected utility is the average utility of the optimal choices of the corresponding next stage possibilities.

Legend:

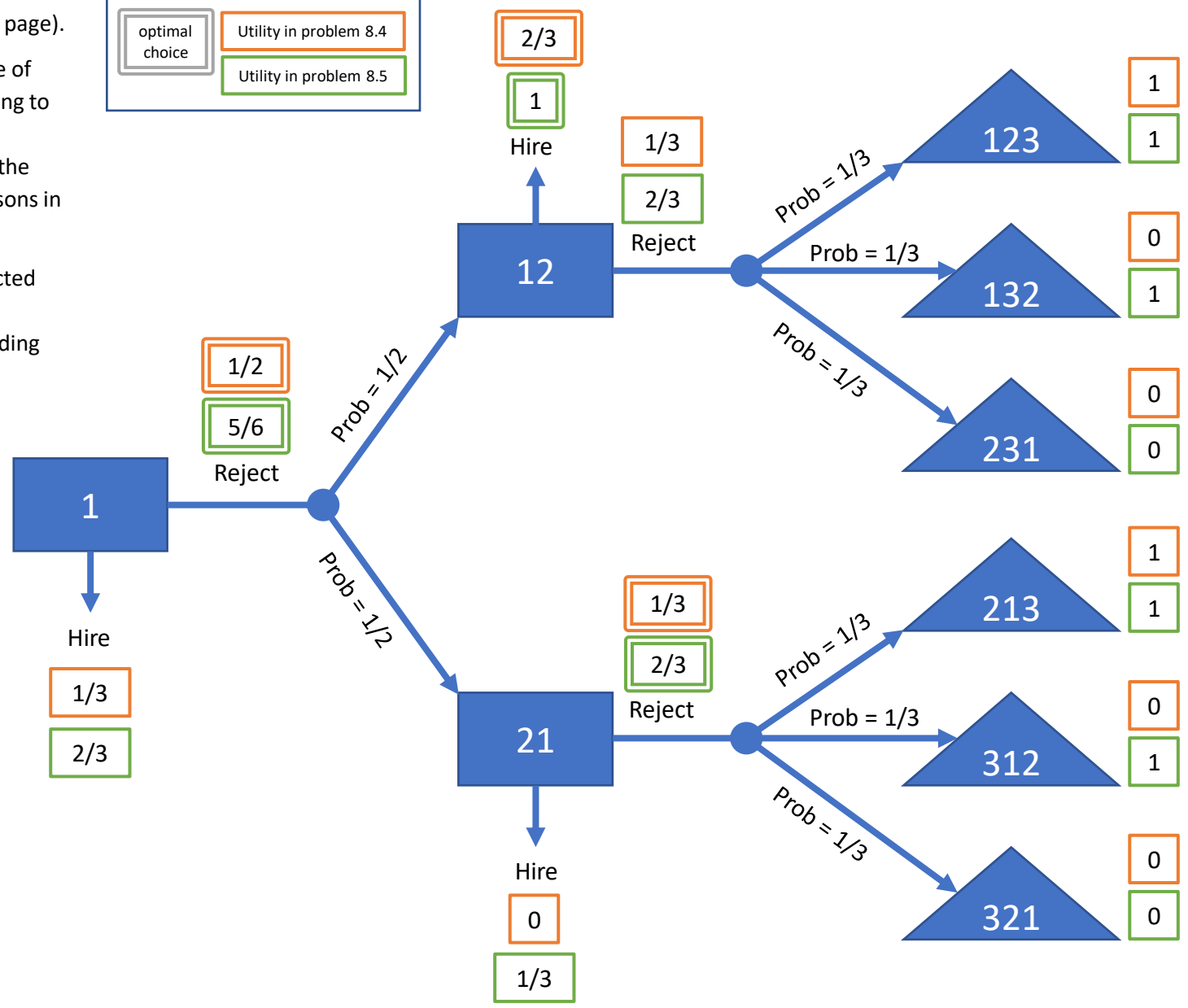
state

final state

optimal choice

Utility in problem 8.4

Utility in problem 8.5



Case $N = 4$ is illustrated in the adjacent figure. Note that in the homework problem (green utilities) at stage 3 in states 132 and 312 the utility of hiring is the same as the utility of rejecting, and thus both choices are equally optimal.

