

2.1.3.1 Example: farmer cross river
fox chicken grain

Initial state ($\{C, F, G, F_m\}, \{\}$)

Goal state ($\{\}, \{C, F, G, F_m\}$)

Solution ① initial state

$[C, F, G, F_m] [\]$

② Take chicken across.

$[F, G] [C, F_m]$

③ Farmer return empty : Row-Back

$[F, G, F_m] [C]$

④ Farmer take Fox across

$[G] [C, F, F_m]$

⑤ Farmer return with Chicken

$[G, C, F_m] [F]$

⑥ Farmer take Grain across

$[C] [F, G, F_m]$

⑦ Farmer return empty

$[C, F_m] [F, G]$

⑧ Farmer takes Chicken across

$[] [F, G, C, F_m]$