



G:

1 $V_P | 0.5 \cdot 0.2 = 0.1$

$V_Q | 0.5 \cdot 0.15 = 0.075$

A:

2 $V_P | 0.4 \cdot \max(0.1 \cdot 0.7, 0.075 \cdot 0.2) = 0.028$

$V_Q | 0.1 \cdot \max(0.075 \cdot 0.3, 0.075 \cdot 0.8) = 0.006$

$P_P(2) = P$

$P_Q(2) = Q$

T:

3 $V_P | 0.1 \cdot \max(0.028 \cdot 0.7, 0.006 \cdot 0.2) = 0.00196$

$V_Q | 0.35 \cdot \max(0.028 \cdot 0.3, 0.006 \cdot 0.8) = 0.00294$

A:

4 $V_P | 0.4 \cdot \max(0.00196 \cdot 0.7, 0.00294 \cdot 0.2) = 0.00055$

$V_Q | 0.1 \cdot \max(0.00196 \cdot 0.3, 0.00294 \cdot 0.8) = 0.00024$

traceback: $V_P > V_Q$ (no endstate probability)

$\Rightarrow \text{state}[4] = P$

$\text{argmax}(0.00196 \cdot 0.7, 0.00294 \cdot 0.2) = 0.00196 \cdot 0.7$

$\Rightarrow \text{state}[3] = P$

$\text{state}[2] = P, \text{state}[1] = P$

$\Rightarrow \text{stateseq} = P P P P$