

Solution #291

Given:

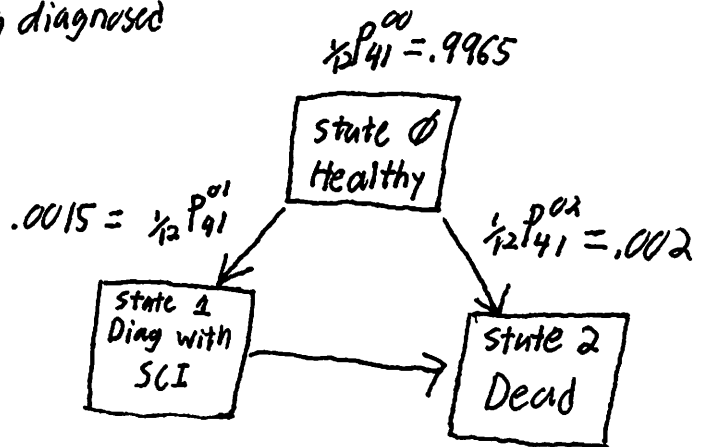
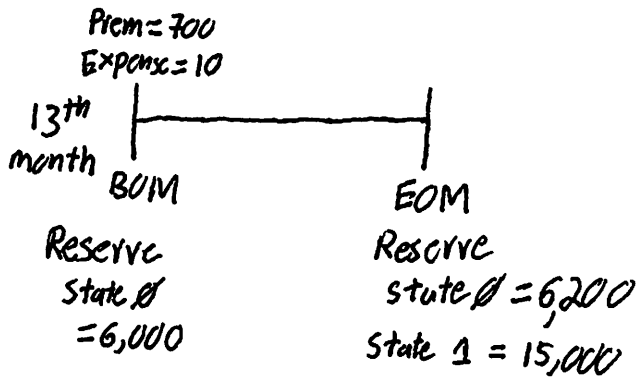
If the policyholder is diagnosed with SCI

$$\text{ben} = 50,000 \text{ (EOM)}$$

If the policyholder dies without being diagnosed

$$\text{ben} = 200,000 \text{ (EOM)}$$

$$i = 0.06$$



$$\begin{aligned} \text{Profits} &= (6,000 + 700 - 10)(1.06)^{1/12} - (.002 \cdot 200,000) \\ &\quad - (.0015(50,000 + 15,000)) - (.9965 \cdot 6,200) \\ &= 46.7639 \end{aligned}$$

$$\approx 47$$

B