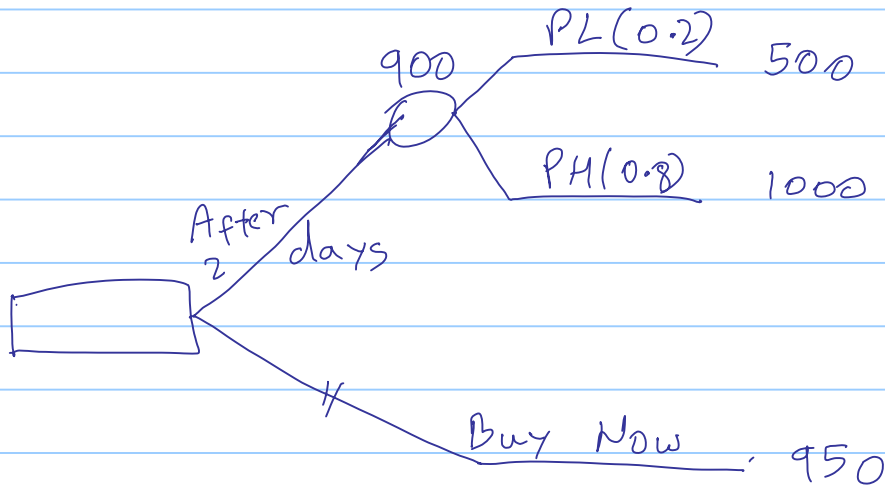


The framework given in the book is for profit. There are two ways to solve a cost question: (1) either take costs as positive and change the definitions, i.e. take min. instead of max. (2) or take costs as negative and use the definitions given in the book. I am here solving the question showing both ways.



$$\text{Expected Cost Now} = \$950$$

$$\text{Expected Cost After 2 days} = 500(0.2) + 1000(0.8) = \$900$$

1.2 Based on Minimum Expected Cost  
Suggestion = Buy After 2 days

1.3

$$E C_{\text{certainty}} = (950 \times 0.8) + (500 \times 0.2)$$

$$= 860$$

$$EVPI = E C_{\text{certainty}} - \text{Min Expected Cost}$$

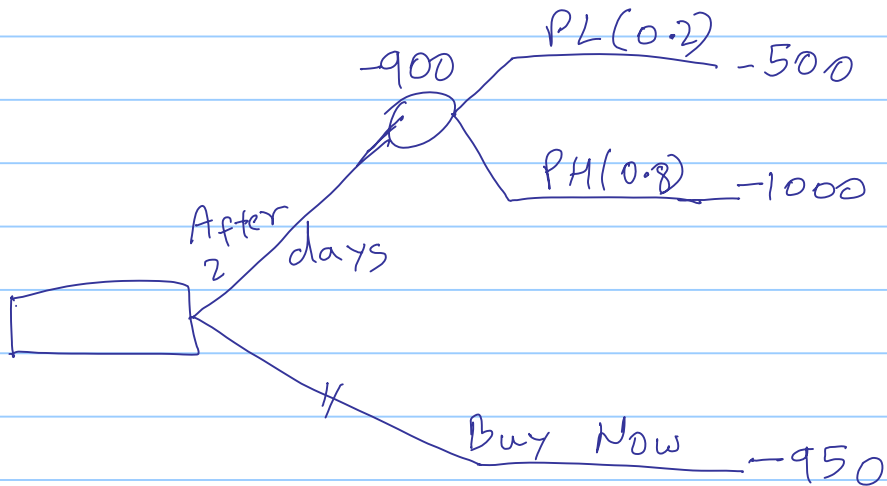
$$= 860 - 900 = -\$40$$

Next I will solve the same question using the framework of profit. Since the framework is for profit, costs would be negative.

$$EMV_{\text{Now}} = -\$950$$

$$EMV_{\text{After 2 days}} = (-500)(0.2) + (-1000)(0.8) = -\$900$$

1.1.



Based on Max EMV

1.2

Suggestion = Buy After 2 days

$$\because -900 > -950$$

1.3

$$EMV_{\text{certainty}} = (-950 \times 0.8) + (-500 \times 0.2)$$

$$= -860$$

$$EPVI = EMV_{\text{certainty}} - \text{Max EMV}$$

$$= (-860) - (-900) = \$40$$

A2)

$$\% \text{ change} = \left( \frac{\frac{120}{3 \times 4} - \frac{100}{2 \times 5}}{\frac{100}{2 \times 5}} \right) \times 100$$

$$= 0\%$$