

Question #111

Answer: A

$$\begin{aligned} \text{Expected present value Benefits} &= \frac{(0.8)(0.1)(10,000)}{1.06^2} + \frac{(0.8)(0.9)(0.097)(9,000)}{1.06^3} \\ &= 1,239.75 \end{aligned}$$

$$\begin{aligned} 1,239.75 &= P \left(1 + \frac{(0.8)}{1.06} + \frac{(0.8)(0.9)}{1.06^2} \right) \\ &= P(2.3955) \\ P &= 517.53 \Rightarrow 518 \end{aligned}$$