

Question #110

Answer: E

π denotes benefit premium

${}_{19}V = EPV$ future benefits - EPV future premiums

$$0.6 = \frac{1}{1.08} - \pi \Rightarrow \pi = 0.326$$

$$\begin{aligned} {}_{11}V &= \frac{({}_{10}V + \pi)(1.08) - (q_{65})(10)}{P_{65}} \\ &= \frac{(5.0 + 0.326)(1.08) - (0.10)(10)}{1 - 0.10} \\ &= 5.28 \end{aligned}$$