

Question #108

Answer: E

$$(1) \quad {}_{11}V^A = \left({}_{10}V^A + 0 \right) \frac{(1+i)}{p_{x+10}} - \frac{q_{x+10}}{p_{x+10}} \times 1000$$

$$(2) \quad {}_{11}V^B = \left({}_{10}V^B + \pi^B \right) \frac{(1+i)}{p_{x+10}} - \frac{q_{x+10}}{p_{x+10}} \times 1000$$

$$(1)-(2) \quad {}_{11}V^A - {}_{11}V^B = \left({}_{10}V^A - {}_{10}V^B - \pi^B \right) \frac{(1+i)}{p_{x+10}}$$

$$= (101.35 - 8.36) \frac{(1.06)}{1 - 0.004}$$

$$= 98.97$$