

227. For a fully discrete 2-year term insurance of 1 on (x) :

(i) $q_x = 0.1 \quad q_{x+1} = 0.2$

(ii) $v = 0.9$

(iii) K_x is the curtate future lifetime of (x) .

(iv) ${}_1L$ is the prospective loss random variable at time 1 using the premium determined by the equivalence principle.

Calculate $\text{Var}({}_1L | K_x > 0)$.

(A) 0.05

(B) 0.07

(C) 0.09

(D) 0.11

(E) 0.13