

146. A fund is established to pay annuities to 100 independent lives age x . Each annuitant will receive 10,000 per year continuously until death. You are given:

(i) $\delta = 0.06$

(ii) $\bar{A}_x = 0.40$

(iii) ${}^2\bar{A}_x = 0.25$

Calculate the amount (in millions) needed in the fund so that the probability, using the normal approximation, is 0.90 that the fund will be sufficient to provide the payments.

(A) 9.74

(B) 9.96

(C) 10.30

(D) 10.64

(E) 11.10