

Assignment

1. Compute various components of life table for the following data

Age(x)	0	1	2	3	4	5	6	7	8	9	10
l_x	10000	9835	9628	9632	9507	9499	9428	9385	9380	9235	9200

2. Consider an example of amount of claim is a random variable. If maximum claim is Rs 5,00,000 which occurs with probability 0.1 and no claim occurs with probability 0.5. Claim amount is positive but less than 5,00,000 with probability 0.4 and the distribution of the claim has the following conditional distribution function:

$$F_1(x) = 1 - \left(1 - \frac{x}{500000}\right)^2 \quad \text{for } 0 < x < 5,00,000.$$

Determine the expected claim amount.

(Link : ref. 9 and 7 of frequently asked questions)
