

Instructions

- i. Parts carrying extra credits and starred problems are not required part of the assignment. Nevertheless, a serious attempt followed by a discussion of these during office hours is encouraged.
- ii. Constructive comments on the assignments and for that matter any other aspect of the course will be welcomed.

Problem 1 Let X be a exponential random variable with expectation of λ . For a given $d > 0$ find $\mathbb{E}(X \wedge d)$, $\text{Var}(X \wedge d)$, $\mathbb{E}((X - d)_+)$ and $\text{Var}((X - d)_+)$.

Problem 2 Derive equation 2.5.2 on page 45 of Actuarial Mathematics.

The rest of the assignment is from BOWERS ET. AL. - They consist of problems 12.8 and 12.10