

Homework 6

Due February 27, 2020 at 11:59 PM

1. (9 points) Find mean (expected value), median and variance of $X \sim \text{Exp}(\alpha)$. The pdf of $\text{Exp}(\alpha)$ is given by

$$f(x) = \begin{cases} \frac{1}{\alpha} e^{-x/\alpha} & , x > 0 \\ 0 & , \text{otherwise} \end{cases}$$

2. P. 263: 5 (4 + 4 points)
3. P. 329: 31 (3 × 4 points)
4. P. 332: 41 (6 + 4 + 4 + 7 points)