

Problems from Assignment 20

1. Suppose the $X \sim \mathcal{P}(\lambda)$. You may use that $E(X) = \lambda$. Find:
 - (a) $E(X(X - 1))$
 - (b) $E(X^2)$
 - (c) $\text{Var}(X)$.

2. Suppose the number of calls to a call center each minute is a Poisson Distribution with mean 3. What is the probability there will be exactly 4 calls in a given minute given there is at least 1?