

Poisson Distribution: Exercise

Q1. Poisson distribution satisfies the following conditions:

- 1.**
- 2.**
- 3.**

Q2. For a Poisson setting, the probability of exactly x occurrences in an interval is

Q3. The mean number of accidents per month at the Globe Cinema Roundabout is 4.

a. What is the probability that any given month 5 accidents will occur at this Roundabout?

b. What is the probability that more than 5 accidents will occur in any given month at this Roundabout?

Q4. The mean number of droughts to hit Marsabit per year is 0.8 over the last 50 years.

a. Calculate the probability that 1 drought will hit Marsabit.

b. Calculate the probability that at most 2 droughts will hit Marsabit.

b. Calculate the probability that more than 3 droughts will hit Marsabit.

Q5. A prison reports that the number of escape attempts per month has a Poisson distribution with a mean value of 1.5.

a. Calculate the probability that exactly three escapes will be attempted during the next month.

b. Calculate the probability that exactly one escape will be attempted during the next month.