LOGM 634 - Homework Set #1

Due 20 September 2017

## From the Ebeling text - Exercise 2.2

## From the Ebeling text - Exercise 2.4

## From the Ebeling text - Exercise 2.11

## From the Ebeling text - Exercise 3.1

## From the Ebeling text - Exercise 3.2

## Summary Exercise

A relay circuit has an average failure rate of 4 failures every 3 years. The circuit's failure times follow an exponential distribution.

1. What is the probability that the circuit will survive for one year without failure?
2. What is the probability that there will be more than two failures in the first year?
3. What is the expected number of failures per year?