STAT 479
Spring 2022
Quiz 4
March 8, 2022

1. You are given the following claim amounts:

    8   12   24   30

    Your hypotheses are:

    H_0: The data is from an exponential distribution with a mean of 20.

    H_1: The data is not from an exponential distribution with a mean of 20.

    a. Calculate the Kolmogorov-Smirnov test Statistic to test this hypothesis.

    b. State the critical value at a 95% confidence level.

    c. State your conclusion from this Hypothesis Test.

2. Del wants to test the following hypothesis using the Chi Square Test with a 99% significance level:

   H_0: The data is from a Poisson distribution.
   H_1: The data is not from a Poisson distribution.

   Del uses the data in the following table to complete the Chi Square Test:

Number of Accidents in 2021	Number of Policies
0	2400
1	3400
2	2400
3+	1800

   (a) Calculate the Chi Square test statistic.

   (b) Calculate the critical value for this test.

   (c) State Del's conclusion.