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A bicycle safety organization claims that fatal bicycle accidents are uniformly distributed throughout the week. The table below shows the day of the week for which 778 randomly selected fatal bicycle accidents occurred. At ἀ = 0.10, can you reject the claim that the distribution is uniform? Complete parts (a) through (d) below.

|  |  |
| --- | --- |
| Day | Frequency, f |
| Sunday | 109 |
| Monday | 111 |
| Tuesday | 105 |
| Wednesday | 111 |
| Thursday | 121 |
| Friday | 106 |
| Saturday | 115 |

1. State Hₒ and Hₐ and identify the claim.

Choose the correct highlighted options

Hₒ: The distribution of fatal bicycle accidents throughout the week is (uniform or not uniform)

Hₐ: The distribution of fatal bicycle accidents throughout the week is (uniform or not uniform)

Which Hypothesis is the claim? Hₒ or Hₐ

1. Determine the critical value, , and the rejection region.

 = \_\_\_\_\_

Choose the correct rejection region below:



1. Calculate the test statistic.

X² = \_\_\_\_\_\_\_ (round to three decimal places as needed)

1. Decide whether to reject or fail to reject the null hypothesis. Then interpret the decision in the context of the original claim. Choose the correct highlighted options.

(Fail to reject or Reject) Hₒ. At the 10% significance level, there (is or is not) enough evidence to reject the claim that the distribution of fatal bicycle accidents throughout the week is uniform.