



Interesting Quotes / Facts:

"In God we trust. All others must bring data."

Assignment 10.1

Course Details

Statistics and Probability (CS/DS)

Topic Details

Testing of Hypothesis (Chi-square Tests)

Course Instructor

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Testing of Hypothesis: Chi-square tests

Assignment 10.1

Statistics and Probability

Task: Solve the following Questions. You can use python.

1. Seven coins are tossed 128 times and the following distribution is obtained. Fit a binomial distribution to the data and test for goodness of fit at 5%LOS.

No of Heads	0	1	2	3	4	5	6	7
No of Tosses	7	7	21	30	26	20	14	3

2. 77 accidents that have occurred in a city in a week are given below. Test at 5% LOS that the accidents occur uniformly throughout the week.

Day	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Accidents	8	10	11	13	14	6	15

3. Out of a sample of 120 persons in a village, 76 persons were administered a new drug for preventing influenza and out of them, 24 persons were attacked by influenza. Out of those who were not administered the new drug, 12 persons were not affected by influenza. Use chi-square test for finding out whether the new drug is effective or not.
4. Weights in kgs of 10 students are given as: 38, 40, 45, 53, 47, 43, 55, 48, 52 and 49. Can we say that the variance of distribution of weights of all the students from which the above sample of 10 students was drawn is equal to 20 sq kg?