Stats Test - 4

Amit

Your score: 53% (8 points out of 15)

Question #1 (1 point)

Which of the two Chi Square distributions shown below (A or B) has the larger degrees of freedom?

[Diagram is sent by email]

Your answer:
B ✔ **Correct**

Question #2 (1 point)

Twelve subjects were each given two flavors of ice cream to taste and then were asked whether they liked them. Two of the subjects liked the first flavor and nine of them liked the second flavor. Is it valid to use the Chi Square test to determine whether this difference in proportions is significant

Your answer:
Yes ✔ **Correct**

Question #3 (1 point)

A die is suspected of being biased. It is rolled 25 times with the following result

Outcome	Frequency
1	9
2	4
3	1
4	8
5	3
6	0

Conduct a significance test to see if the die is biased. What is the degree of freedom value?

Your answer:

5 ✔ **Correct**

Question #4 (2 points)

From question 3, what is the chi-square value do you get?

Your answer:
3.87 ✘ **Incorrect**

Correct answer:
2.67

Question #5 (1 point)

Suppose that college students are asked to identify their preferences in political affiliation (Democrat, Republican, or Independent) and in ice cream (chocolate, vanilla, or straw- berry). Suppose that their responses are represented in the following two-way table (with some of the totals left for you to calculate).

	Chocolate	**Vanilla**	**Strawberry**
Democrat	26	43	13
Republican	45	12	8
Independent	**9**	13	4

What proportion of the respondents prefer chocolate icecream?

Your answer:
0.46 ✔ **Correct**

Question #6 (1 point)

From question 5

What proportion of Independents prefer chocolate ice cream?

Your answer:
0.34 ✔ **Correct**

Question #7 (2 points)

From question 5

What proportion of those who prefer chocolate ice cream are Independents?

Your answer:
0.11 ✔ **Correct**

Question #8 (1 point)

A Chi Square distribution with 2 df has a larger mean than a Chi Square distribution with 12 df.

Your answer:
True ✘ **Incorrect**

Correct answer:
False

Question #9 (1 point)

A Chi Square test is often used to determine if there is a significant relationship between two continuous variables?

Your answer:
False ✘ **Incorrect**

Correct answer:
True

Question #10 (2 points)

Some parents of the West Bay little leaguers think that they are noticing a pattern. There seems to be a relationship between the number on the kids' jerseys and their position. These parents decide to record what they see. The hypothetical data appear below. Conduct a Chi Square test to determine if the parents' suspicion that there is a relationship between jersey number and position is right.

What is the chi square value?

Your answer:
3.67 ✘ **Incorrect**

Correct answer:
2.39

Question #11 (1 point)

From question 10

what is the degree of freedom?

Your answer:
9 ✘ **Incorrect**

Correct answer:
4

Question #12 (1 point)

Assume that the weights of 100 individuals of a locality are normally distributed. Twenty persons in the distribution are heavier than 50% of the individuals.

What is the degree of freedom for such a distribution.

Your answer:
97 ✔ **Correct**