

Module 6: Submitted Homework Assignment

****Module 6 Submitted Homework Assignment is worth 20 points (5% of your grade)**

Write answers for the following and submit them via email according to the schedule in the course syllabus. Be sure your answers are contained in the body of your message. **Do NOT send them as attachments.**

Send your answers to Module 6 to the instructor: mccartc1@ohio.edu

The questions are structured so that a single letter, word, or number will suffice. Computational questions are arranged so that partial credit can be given for each step answered correctly. *Always use the following model to submit your answers to the questions.*

EXAMPLE:

Your name:

Module Number:

Answers

Q1 C
Q2 B
Q3 A, etc.

If the question requires computation, do the calculations and then give the correct values as follows:

(Always hold all decimal values through your computations, and round final answers to at least two decimal places)!

Q4 7
Q5 4
Q6 22, etc.

If the question is a fill in the blank, just put in the appropriate word(s) as follows:

Q7 statistics
Q8 dependent variable, etc.

Module 6 Questions—Submit answers via email to mccartc1@ohio.edu according to above instructions: (There are 20 questions to be answered for Module 6)

The following 3 questions (Q1 to Q3) are based on the information below:

A survey of Ohio University students was conducted to determine if there was a particular ‘Green’ that was desired by students to live on. A sample of 120 students responses are reproduced below. Do students prefer a particular ‘Green’? Use critical value = 5.99.

West Green	South Green	East Green
40	20	60

- Q1:** What are the expected values?
- Q2:** What is the calculated chi-squared value?
- Q3:** Was there a significant preference for where students live?
- A. Yes
 - B. No

The following 3 questions (Q4 to Q6) are based on the information below:

A local sports bar wanted to determine whether Ohio University students prefer a particular type of food in their establishment. A sample of 100 students responses are reproduced below. Do students prefer a particular type of bar food? Use critical value = 7.82.

Nachos	Pizza	Chicken Wings	Cheese Sticks
30	20	35	15

- Q4:** What are the expected values?
- Q5:** What is the calculated chi-squared value?
- Q6:** Was there a significant preference for what students eat in a sports bar?
- A. Yes
 - B. No

The following 8 questions (Q7 to Q14) are based on the information below:

The following data comes from “The Impact of AIDS on Gender Differences in Willingness to Engage in Casual Sex” by Russell Clark, *Journal of Applied Social Psychology*, Vol. 20, No.9, pp.771-782. In this study researchers were interested in gender differences in willingness to engage in casual sex. Both males and females were approached by opposite sex confederates and asked one of the three questions: “I have been noticing you around campus. I find you to be very attractive.” Then the confederate asked one of these three questions: “Would you go out with me tonight?” “Would you come over to my apartment tonight?”

“Would you go to bed with me tonight?” The type of question was randomly determined for each request. Test for a relationship between gender and compliance with each request. Interpret your findings. The results for the first two questions are as follows:

	<u>Date</u>	
	<u>Yes</u>	<u>No</u>
<u>Male</u>	14	2
<u>Female</u>	6	10

There are four total expected values:

Q7: What are the expected values for ‘male-yes’ and ‘female-yes’ (they should be the same)?

Q8: What are the expected values for ‘male-no’ and ‘female-no’ (they should be the same)?

Q9: What is the calculated chi-squared value?

Q10: Using a critical value of 3.84, was there a significant relationship between gender and compliance?

- A. Yes
- B. No

	<u>Apartment</u>	
	<u>Yes</u>	<u>No</u>
<u>Male</u>	8	8
<u>Female</u>	6	10

There are four total expected values:

Q11: What are the expected values for ‘male-yes’ and ‘female-yes’ (they should be the same)?

Q12: What are the expected values for ‘male-no’ and ‘female-no’ (they should be the same)?

Q13: What is the calculated chi-squared value?

Q14: Using a critical value of 3.84, was there a significant relationship between gender and compliance?

- A. Yes
- B. No

Q15: Which of the following data organization schemes is useful in showing changes in data relationships over time?

- A. bar graph
- B. pictogram
- C. line graph
- D. pie chart
- E. scatterplot
- F. none of the above

Q16: Which of the following is/are necessary for properly displaying a statistical plot, picture, or graph?

- A. a title
- B. a source
- C. proper labeling of the axes
- D. proper labeling/representation of the pie segments, bars, etc.
- E. All of the above

Q17: A pie chart would be most appropriate with which of the following statistical tests?

- A. chi-square goodness-of-fit
- B. chi-square test for independence
- C. correlation

The following 3 questions (Q18 to Q20) are either “True” or “False”

Q18: Bar graphs are useful to represent two or more measurement variables.

Q19: ‘Chart-junk’ should be used in all statistical plots, pictures, and graphs.

Q20: A chi-square test is appropriate with categorical variables.