

MATH 1342

Homework 7 (Chapter 7)

Instructions: Answer all questions through the EMCF tab of casa under the assignment named “Homework 7” before the deadline.

There is no “Submit” button. Your answers will be automatically submitted once the deadline arrives.

Assignments will be graded out of 10 points.

1. Section 7.1; Problem 10 A. Increase B. Decrease C. No Change

2. Section 7.2; Problem 6: Have the assumptions been met?

A. Yes. Values of 72 and 28.

B. Yes. Values of 144 and 56.

C. Yes. Values of 14400 and 5600.

D. No. Values of 0.72 and 0.28.

E. No. Values of 14.4 and 5.6.

3. Section 7.2; Problem 6: Confidence Interval:

A. [0.6678, 0.7722]

B. [0.7180, 0.7219]

C. [0.7156, 0.7244]

D. [0.6578, 0.7822]

E. [0.5658, 0.8742]

4. Section 7.2; Problem 6: Interpretation

A. 95% of the population has a proportion in the specified interval.

B. 95% of the sample has a proportion in the specified interval.

C. We are 95% certain that the sample proportion is in the specified interval

D. We are 95% certain that the population proportion is in the specified interval.

E. 95% of respondents reported their beliefs to be within the specified interval.

5. Section 7.2; Problem 6:

After a second run of the study, it was determined that the sample proportion is actually slightly less than the original 72% originally reported. What impact will this have on the width of the confidence interval?

- A. The new interval will be wider.
- B. The new interval will be narrower.
- C. The new interval will be the same width.

6. Section 7.3; Problem 2: Confidence Interval only

- A. [0.3134, 0.3363]
- B. [0.2470, 0.3530]
- C. [0.2597, 0.3403]
- D. [0.2686, 0.3314]
- E. [0.2614, 0.3386]

7. Section 7.4; Problem 6: Confidence Interval

- A. [119.68, 125.32]
- B. [119.05, 125.95]
- C. [119.62, 125.38]
- D. [113.61, 131.39]
- E. [119.14, 125.86]

8. Section 7.4; Problem 6: Interpretation

- A. 95% of the population falls within the interval specified.
- B. 95% of the sample was used to calculate the mean.
- C. We are 95% certain that the sample mean falls within the interval.
- D. We are 95% certain that the population mean falls within the interval.
- E. The sample mean will exactly equal the population mean 95% of times

9. Section 7.5; Problem 6: Test and Assumptions

- A. Since the population is not specified as Normally Distributed, the problem cannot be solved.
- B. We can assume that the population is normally distributed and solve using a Two Sample z-test for means.
- C. We can assume that the population is normally distributed and solve using a Two Sample t-test for means.

10. Section 7.5; Problem 6: Confidence Interval

- A. [-0.633, 2.833]
- B. [-3.237, 5.437]
- C. [-3.203, 5.404]
- D. [0.789, 1.411]
- E. [-7.373, 11.573]