Math 189/289C Homework 1 (Main Document)

Yuqi Wang, Ning Xu, Chenyue Fang, Chengyu Chen, Daniel Hahnkyul Lee, Xinran Wang

TOTAL POINTS

75 / 80

QUESTION 1

1 problem 1 10 / 10

✓ - **0 pts** Correct

- **3 pts** does not mention min/max/portion

- **7 pts** does not mention min/max//portion/1st quartile/3rd quartile

QUESTION 2

2 problem2 10 / 10

✓ - **0 pts** Correct

- **3 pts** draw two histograms but did not combine two graphs together

- **7 pts** do not have histograms and boxplots

QUESTION 3

3 problem3 10 / 10

✓ - **0 pts** Correct

- **3 pts** changed the threshold of "low weight definition" but did not mention both cases of increasing and decreasing/ or did not graphically summarize your data/or did not get the conclusion for "how reliable of your estimates"

- **7 pts** did not change the threshold for underweight babies

QUESTION 4

4 problem4 9 / 10

- **0 pts** Correct

✓ - **1 pts** relate more contents of "other studies"

QUESTION 5

5 language 10 / 10

✓ - **0 pts** Correct

QUESTION 6

6 additional hypothesis 6 / 10

- **0 pts** Correct

- **1 pts** almost correct

✓ - **4 pts** be more specific

QUESTION 7

7 method histogram/qq-plot/skewness&kurtosis 10 / 10

✓ - **0 pts** Correct

- **3 pts** need one more method

- **7 pts** need two more methods

- **3 pts** mentioned skewness but did not explain the outcome you get

- **7 pts** did not explain the outcomes you get for more than one item

QUESTION 8

8 theory 10 / 10

✓ - **0 pts** Correct

- **2 pts** theory part should be separated from your analysis (put theory part in the end)

- **10 pts** there should be a "theory part"

- **5 pts** need to mention more concepts that you have used in your report

- **3 pts** please take a look at the theory part of professor's lecture. Yours format should follow that.

- **1 pts** please take a look at the theory part of professor's lecture. Yours format should follow that.

- **0 pts** correct, but please take a look at the theory part of professor's lecture. Yours format should follow that.

- **2 pts** need to mention more concepts that you have used in your report

- **1 pts** need to mention more concepts that you have used in your report

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Math 189/289C Homework 2 (Main Document)

Yuqi Wang, Xinran Wang, Ning Xu, Chenyue Fang, Chengyu Chen, Daniel Hahnkyul Lee

TOTAL POINTS

92 / 100

QUESTION 1

1 Scenario 1 10 / 10

✓ - **0 pts** Correct

- **3 pts** CI/CI with finite correction/bootstrap (does not have one of these three)

- **6 pts** CI/CI with finite correction/bootstrap (does not have two of these three)

- **9 pts** CI/CI with finite correction/bootstrap (does not have all of these three)

- **1 pts** does not have a point estimate

QUESTION 2

2 Scenario 2 10 / 10

✓ - **0 pts** Correct

- **3 pts** did not compare if there was an exam in the week prior with the regular estimate comparison

- **7 pts** did not graphically compare time with frequency

QUESTION 3

3 Scenario 3 10 / 10

✓ - **0 pts** Correct

- **3 pts** did not get the lower and upper bound for CLT/CI with finite correction/bootstrap(either one of these three)

- **6 pts** did not get the lower and upper bound for CLT/CI with finite correction/bootstrap(two of these three)

- **9 pts** did not get the lower and upper bound for CLT/CI with finite correction/bootstrap(all of these three)

- **10 pts** did not investigate Scenario 3

QUESTION 4

4 Extra Credit 2 / 10

- **0 pts** Correct

- **5 pts** for Scenario 4(decision tree), TA's code cannot be just copied into the final result in this case

- **5 pts** did not investigate Scenario 4

- **5 pts** did not investigate Scenario 6

✓ - **5 pts** Scenario 4 needs to include a decision tree

✓ - **3 pts** for Scenario 6, only have the distribution is not enough, a test should be used

QUESTION 5

5 Introduction 10 / 10

✓ - **0 pts** Correct

- **10 pts** does not have an introduction part

- **5 pts** introduction part should introduce what you have done in your whole report

QUESTION 6

6 Data description 10 / 10

✓ - **0 pts** Correct

- **3 pts** does not explain how these survey answers are numerically coded

- **7 pts** does not have a data description part

QUESTION 7

7 Background 10 / 10

✓ - **0 pts** Correct

- **7 pts** does not have a background part

- **5 pts** have a background part but did not introduce the survey methodology

QUESTION 8

8 Theory 10 / 10

✓ - **0 pts** Correct

- **3 pts** theory part does not explain bootstrap or confidence interval

- **7 pts** theory part does not explain bootstrap and

confidence interval

  - 10 pts does not have a theory part

9 Discussion **10 / 10**

 ✓ **- 0 pts** Correct

  - 5 pts conclusion/discussion part does not include suggestions to the designers of the new computer lab

  - 10 pts does not have a conclusion/discussion part

10 Scenario 5 **10 / 10**

 ✓ **- 0 pts** Correct

  - 3 pts did not graphically(histogram/ box-plot/...) investigate

  - 4 pts did not use cross-tabulations

Math 189/289C Homework 3 (Main Document)

Xinran Wang, Yuqi Wang, Chengyu Chen, Chenyue Fang, Ning Xu, Daniel Hahnkyul Lee

TOTAL POINTS

115 / 115

QUESTION 1

1 Q1: Random scatter **10 / 10**

✓ - **0 pts** Correct

- **5 pts** did not answer the question

- **5 pts** check with your graphs again, they did not show correctly in your report

QUESTION 2

2 Q2: Locations and spacings **10 / 10**

✓ - **0 pts** Correct

- **5 pts** did not do Q2

QUESTION 3

3 Q3: Counts **10 / 10**

✓ - **0 pts** Correct

- **5 pts** did not do Q3

QUESTION 4

4 Q4: The biggest cluster **10 / 10**

✓ - **0 pts** Correct

- **5 pts** did not do Q4

QUESTION 5

5 Methods **40 / 40**

- **10 pts** Missing Chi-squared/K-S test on exponential distribution

- **10 pts** Missing Chi-squared/K-S test on uniform distribution

- **10 pts** Missing Chi-squared test/K-S test on poisson distribution

- **10 pts** Missing maximum hit method

✓ - **0 pts** correct

QUESTION 6

6 Introduction/ Background/Data descriptioin **15 / 15**

✓ - **0 pts** Correct

- **5 pts** does not have introduction/background/data description(one of three)

- **10 pts** does not have introduction/background/data description(two of three)

- **15 pts** does not have introduction/background/data description(all of three)

QUESTION 7

7 Theory **10 / 10**

✓ - **0 pts** Correct

- **3 pts** Chi-square/ exponential&uniform distribution/poisson distribution/maximum likelihood(did not explain one of four)

- **7 pts** Chi-square/ exponential&uniform distribution/poisson distribution/maximum likelihood(did not explain two of four)

QUESTION 8

8 Extra Credit **10 / 10**

✓ - **0 pts** Correct

- **5 pts** Click here to replace this description.

- **7 pts** Click here to replace this description.

- **10 pts** Click here to replace this description.

Math 189/289C Homework 4 (Main Document)

Ning Xu, Yuqi Wang, Xinran Wang, Chenyue Fang, Chengyu Chen, Daniel Hahnkyul Lee

TOTAL POINTS

85 / 85

QUESTION 1

1 Q1: Fitting **10 / 10**

✓ **- 0 pts** Correct

    - 10 pts no theory part

QUESTION 2

2 Q2: Predicting **10 / 10**

✓ **- 0 pts** Correct

    - 10 pts Click here to replace this description.

QUESTION 3

3 Q3: Cross-Validation **10 / 10**

✓ **- 0 pts** Correct

QUESTION 4

4 Extra Credit **10 / 10**

✓ **- 0 pts** Correct

    - 10 pts did not use additional method

    - 5 pts Click here to replace this description.

QUESTION 5

5 Methods **20 / 20**

    - 10 pts did not use log transformation

    - 10 pts did not use normal q-q plot/scatterplot

✓ **- 0 pts** correct

QUESTION 6

6 Theory **10 / 10**

✓ **- 0 pts** Correct

    - 10 pts no theory part

QUESTION 7

7 Structure **15 / 15**

✓ **- 0 pts** Correct

    - 5 pts no conclusion

    - 5 pts no introduction

    - 5 pts no data description/background

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Math 189/289C Final Project (Main Document)

Ning Xu, Yuqi Wang, Chenyue Fang, Chengyu Chen, Xinran Wang, Daniel Hahnkyul Lee

TOTAL POINTS

100 / 100

QUESTION 1

1 Introduction **10 / 10**

    ✓ - **0 pts** Correct

QUESTION 2

2 Data Description **10 / 10**

    ✓ - **0 pts** Correct

    - **5 pts** Missing details of data fields

QUESTION 3

3 Background **10 / 10**

    ✓ - **0 pts** Correct

    - **10 pts** Missing

QUESTION 4

4 Investigations **50 / 50**

    ✓ - **0 pts** Correct

    - **20 pts** Missing detailed analysis of the methods

    - **15 pts** Not enough in depth analysis

    - **10 pts** Mistakes in analysis

QUESTION 5

5 Theory **10 / 10**

    ✓ - **0 pts** Correct

    - **10 pts** Missing theory

QUESTION 6

6 Discussions **10 / 10**

    ✓ - **0 pts** Correct

    - **5 pts** Missing explanations for the conclusions

    - **10 pts** Missing

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