**Quiz Summary**

Section FilterSection Filter

Generate student analysis report Report has never been generated. Student Analysis

Report has never been generated.

Generate item analysis report Report has never been generated. Item Analysis

Report has never been generated.

| Summary statistics for all turned in submissions*.* | | | | |
| --- | --- | --- | --- | --- |
| Average Score | High Score | Low Score | Standard Deviation | Average Time |
| **86%** | 100% | 63% | 0.44 | 3 hours and 59 minutes*.*03:59:81 |

0%10%20%30%40%50%60%70%80%90%100%1074123 students scored above or at the average, and 16 below. 2 students in percentile 63. 1 student in percentile 69. 10 students in percentile 75. 3 students in percentile 81. 10 students in percentile 88. 4 students in percentile 94. 9 students in percentile 100.

**Question Breakdown**

Question 1

Attempts: 39 out of 39

Suppose you have fitted these models in order to offer advice to a college dean about what (besides teaching quality) might affect course evaluations. Write ONE advantage of discussing the model best.bic.model with the dean, and ONE advantage of discussing the model best.stepwise.model with the dean.

(write two sentences, one for each model)

| A table of answers and brief statistics regarding student answer choices. | | | |
| --- | --- | --- | --- |
| **Answer Description** | **Number of Respondents** | **Percent of respondents selecting this answer** | **Answer Distribution** |
| **Answers which scored in the top 27%, (Correct answer)Answers which scored in the top 27%** | 28 respondents | **72 %** |  |
| Answers which scored in the bottom 27%, (Incorrect answer)Answers which scored in the bottom 27% | 11 respondents | 28 % |  |

[View in SpeedGrader](https://canvas.cmu.edu/courses/30549/gradebook/speed_grader?assignment_id=529869)

Question 2

Attempts: 39 out of 39

Which model will you choose to discuss with the dean, best.bic.model or best.stepwise.model, and why?

(Write one sentence for your answer)

| A table of answers and brief statistics regarding student answer choices. | | | |
| --- | --- | --- | --- |
| **Answer Description** | **Number of Respondents** | **Percent of respondents selecting this answer** | **Answer Distribution** |
| **Answers which scored in the top 27%, (Correct answer)Answers which scored in the top 27%** | 38 respondents | **97 %** |  |
| Answers which scored in the bottom 27%, (Incorrect answer)Answers which scored in the bottom 27% | 1 respondent | 3 % |  |

[View in SpeedGrader](https://canvas.cmu.edu/courses/30549/gradebook/speed_grader?assignment_id=529869)

Question 3

Attempts: 39 out of 39

Now we use the test data to compare the models (see below).   Does the result cause you to change your answer to question 2?  Write one sentence explaining why or why not.

> ###############################  
> ## test set cross validation ##  
> ###############################  
>   
> best.bic.pred <- predict(best.bic.model,newdata=beauty.test)  
> best.bic.pred.RMSE <-  
+     sqrt(mean((beauty.test$courseevaluation - best.bic.pred)^2))  
>   
> best.stepwise.pred <- predict(best.stepwise.model,newdata=beauty.test)  
> best.stepwise.pred.RMSE <-  
+     sqrt(mean((beauty.test$courseevaluation - best.stepwise.pred)^2))  
>   
> best.bic.pred.RMSE  
[1] 0.5210218  
> best.stepwise.pred.RMSE  
[1] 0.5423852

| A table of answers and brief statistics regarding student answer choices. | | | |
| --- | --- | --- | --- |
| **Answer Description** | **Number of Respondents** | **Percent of respondents selecting this answer** | **Answer Distribution** |
| **Answers which scored in the top 27%, (Correct answer)Answers which scored in the top 27%** | 36 respondents | **92 %** |  |
| Answers which scored in the bottom 27%, (Incorrect answer)Answers which scored in the bottom 27% | 3 respondents | 8 % |  |

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Question 4

Attempts: 39 out of 39

For the model you chose in question 2:

Not including transformations, what modification would you try on this model?  Write one sentence describing your modification, or just write "no modifications" if you don't think any are needed.

| A table of answers and brief statistics regarding student answer choices. | | | |
| --- | --- | --- | --- |
| **Answer Description** | **Number of Respondents** | **Percent of respondents selecting this answer** | **Answer Distribution** |
| **Answers which scored in the top 27%, (Correct answer)Answers which scored in the top 27%** | 16 respondents | **41 %** |  |
| Answers which scored in the middle 46%, (Incorrect answer)Answers which scored in the middle 46% | 13 respondents | 33 % |  |
| Answers which scored in the bottom 27%, (Incorrect answer)Answers which scored in the bottom 27% | 10 respondents | 26 % |  |