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Task 2

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In what follows use any of the following tests/procedures: Regression, multiple regressions, confidence intervals, one-sided t-test or two-sided t-test. All the procedures should be done with 5% P-value or 95% confidence interval.

Upload data [HeartRate_Exercise \(/Content/DataFiles/HeartRate_Exercise.txt\)](/Content/DataFiles/HeartRate_Exercise.txt). These data are based on 45 randomly chosen High school students.

SETUP: Is it reasonable to claim that students who exercise more have lower heart beat rate at rest. Given the data your job is to confirm or disprove this claim.

5. What test/procedure did you perform?

- ☐ a. One-sided t-test
- ☐ b. Two-sided t-test
- ☐ c. Regression
- ☐ d. Confidence interval

6. What is the P-value/margin of error?

- ☐ a. 1.56075E-45
- ☐ b. 3.1215E-45
- ☐ c. 6.149555
- ☐ d. 0.014702
- ☐ e. None of these

7. Statistical Interpretation

- ☐ a. Since P-value is very small we are confident that the average heart rate is above 70.
- ☐ b. Since P-value is very small we are very confident that the averages are different.
- ☐ c. Since P-value is very small we are confident that the slope of regression line is not zero.
- ☐ d. We are 95% certain that the confidence interval is [72.18, 84.48].
- ☐ e. None of these

8. Conclusion

- ☐ a. Yes, I am confident that the above assertion is correct.
- ☐ b. No, we cannot claim that the above assertion is correct.

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