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Conduct the Analysis

Reflect on the Question

Analyze the Data

Draw Conclusions

Primary Research Question

How has the men's shotput world record changed over time? What about the women's world record?

Conduct the Analysis in R

1. Type or copy the script from the Prepare for the Analysis section into the Script window of R.
2. Select the portion of the code you wish to run, then press "ctrl+ enter."
3. Output can be found in the Console window.

problem

2/2 points (graded)

1a. How many records are in the menshot data frame?

39



39

1b. How many records in the womenshot data frame?



41

You have used 1 of 1 attempt

✓ Correct (2/2 points)

problem

2/2 points (graded)

As you look at the scatterplot:

2a. Is a linear model appropriate for the men's shotput data?



2b. Is a linear model appropriate for the women's shotput data?



You have used 1 of 1 attempt

✓ Correct (2/2 points)

problem

3/3 points (graded)

What is the equation for the linear model that predicts the World Record shotput distance for men?

3a. record distance = _____ + (_____ * year)

-243.3



0.134



3b. What is the value of R^2 ?

0.941



Submit

You have used 1 of 1 attempt

✓ Correct (3/3 points)

problem

3/3 points (graded)

What is the equation for the linear model that predicts the World Record shotput distance for women?

4a. record distance = _____ + (_____ * year)

-440.3



0.234



4b. What is the value of R^2 ?

0.962



Submit

You have used 1 of 1 attempt

✓ Correct (3/3 points)

problem

1/1 point (graded)

5. What can we say about the models for men and women?

- ☐ There is no difference in the rate of change for men and women.
- ☐ The rate of change is greater for men than for women.
- ☒ The rate of change is greater for women than for men. ✓
- ☐ The two models cannot be compared because they are different events.

Submit

You have used 1 of 1 attempt

✓ Correct (1/1 point)

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