

Course > Week... > Probl... > Ques...

# Question 1 Question 1

# We want to find the best-fitting linear model for men's pole vault world records since 1970.

- 1. Create a new data frame that contains the world record cases in the men's pole vault event in years 1970 and later.
- 2. Use this data frame to answer the following questions.

Use the "WorldRecords.csv" dataset to answer the following questions. Instructions for installing "WorldRecords.csv" can be found under the **Examine the Data** unit in this week's **Pre-Lab** section.

#### problem

1/1 point (graded)

1a. What is the standing world record height (in meters) for men's pole vault? (Round to 2 decimal places.)

6.14





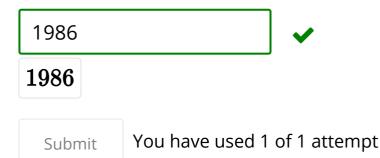
Submit

You have used 1 of 1 attempt

# problem

1/1 point (graded)

1b. In what year did the pole vault record first exceed **6 meters**? (Look at the data to find the year.)



## problem

1/1 point (graded)

1c. Create a scatterplot showing the men's pole vault records since 1970 as a function of year. Fit a linear model to the data.

Which of the following best describes how the record has changed over time?

- ullet The record pole vault height steadily increases over time. ullet
- The record pole vault height steadily decreases over time.

- The record pole vault height has a clear non-linear relationship with year.
- The record pole vault height doesn't seem to have any relationship with year.

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You have used 1 of 1 attempt

#### problem

1/1 point (graded)

Report the coefficient estimates for the linear model that describes the change in the men's pole vault world record since 1970.

1d. What is the intercept? (Round to 3 decimal places.)



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You have used 1 of 1 attempt

#### problem

1/1 point (graded)

1e. What is the slope? (Round to 3 decimal places.)



0.029

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You have used 1 of 1 attempt

## problem

1/1 point (graded)

1f. Which of the following best describes how the men's pole vault world record has changed since 1970?

- The record has increased by an average of one meter every 0.03 years since 1970.
- The record has increased by an average of one meter every 0.97 years since 1970.
- The record has increased by an average of 0.03 meters per year since 1970. ✓
- The record has increased by an average of 0.97 meters per year since 1970.

Submit

You have used 1 of 1 attempt

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