

Friday, October 12, 2018

- Warm-up

- Many populations grow exponentially. Here are the data for the estimated population of Europe (in millions) from 1700 to 2012. The dates are recorded as years since 1700 ($x = 312$ is 2012)

Years since 1700	0	50	100	150	200	250	299	308	310	312
Population (millions)	125	163	203	276	408	547	729	732	738	740

- Use a logarithm to transform population size. Then calculate and state the least-squares regression line using the transformed variable.
- Use your model to predict the population size of Europe in 2020.

- Talk about Tests...

Objectives:

Content: I will reflect on and correct my thinking from the test.

Social: I will be positive and help others think through their errors.

Language: I will clearly write about my strengths and weaknesses.

- Many populations grow exponentially. Here are the data for the estimated population of Europe (in millions) from 1700 to 2012. The dates are recorded as years since 1700 ($x = 312$ is 2012)

Years since 1700 <i>A</i>	0	50	100	150	200	250	299	308	310	312
Population (millions) <i>B</i>	125	163	203	276	408	547	729	732	738	740

C $\log_{10}(\text{pop}) = \log_{10}(b[x])$

- Use a logarithm to transform population size. Then calculate and state the least-squares regression line using the transformed variable.

$$\widehat{\log(\text{pop})} = 2.079 + 0.002 \text{ years}$$

- Use your model to predict the population size of Europe in 2020.

$$\rightarrow \log(\text{pop}) = (2.079 + 0.00256(320))$$

$$\log(\text{pop}) = 2.719$$

$$\text{pop} \approx 10^{2.719} \approx 759 \text{ million}$$

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Tests

- On your own paper, set up a table like:

Use the chart below to complete your test corrections and reflection. The following choices can be used as your reflection. You can pick more than one if needed.

1. I read the question incorrectly.
2. I misread the answer I selected.
3. I did not read all the available choices. *(for multiple choice questions only)*
4. I did not study this particular topic enough.
5. I need to put more detail into my answer.
6. I need to write my answer in a complete sentence.
7. I did not understand what the question was asking.
8. Other... (If you choose this selection, you must include a detailed written response explaining why you answered the question incorrectly.)

**Correct
(at least)
2 MC and your
lowest FR**

Problem Number (multiple part questions each need their own space)	Question/Answer Rewrite the problem you answered incorrectly with the CORRECT ANSWER.	Student Reflection Think about why you answered the question incorrectly. Select a reflection choice that identifies why you got the problem wrong.

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