Quiz 1: Simple Linear Regression

* Required

1. **What is your email?** *

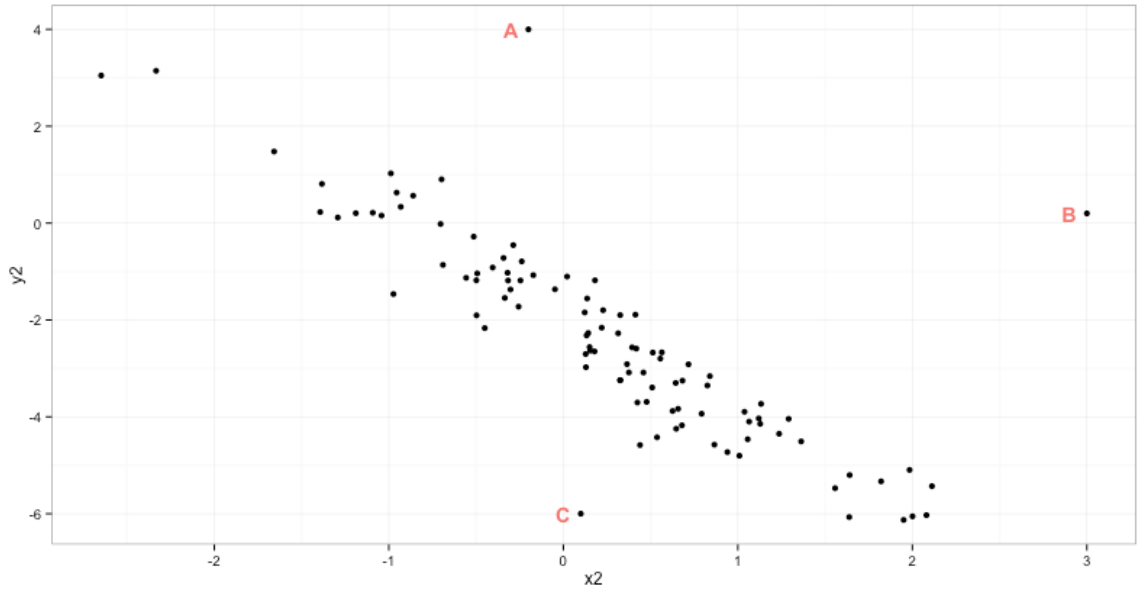
.....

2. **Which of the labeled points would have the biggest impact on the slope of a least-squares fitted line estimated from the data in Figure 1?** *

Mark only one oval.

- point A
- point B
- point C
- Impossible to tell.

Figure 1



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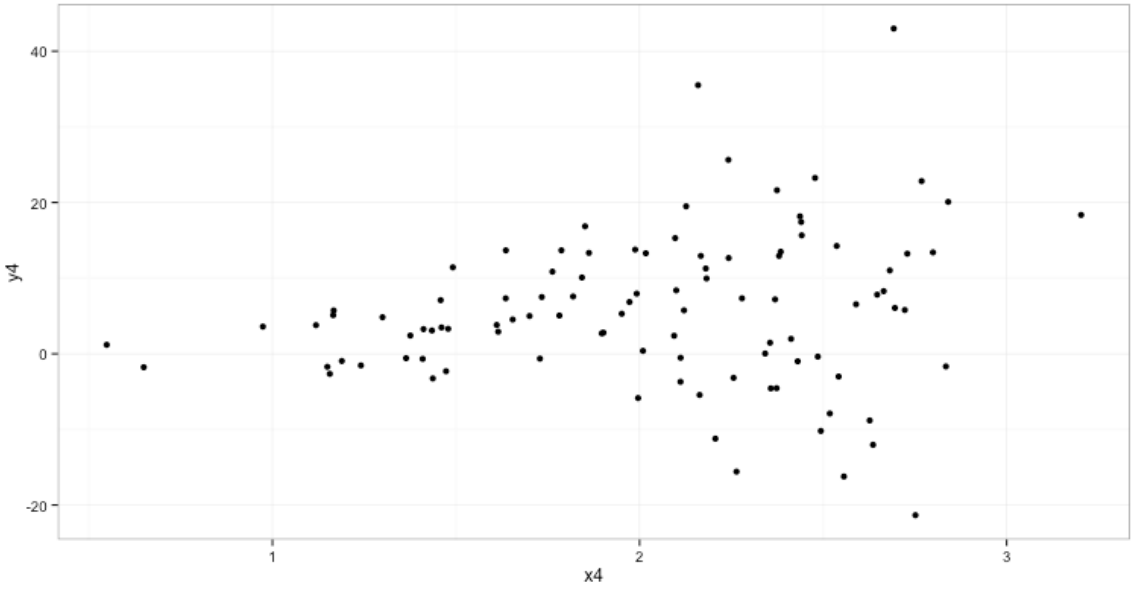
3. **What assumption are you concerned about being violated with the data in Figure 2?** *
Mark only one oval.

- A2: Unbiased errors: E[εi |xi] = E[εi] = 0
- A3: Uncorrelated errors: cov (εi , εj) = 0 for i ≠ j .
- A4: Constant variance: Var [yi |xi] = σ2
- Looks fine to me.

Figure 2



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4. **The residual for point A is calculated by drawing a line through point A that is perpendicular to the fitted regression line.** *
Mark only one oval.

- TRUE
- FALSE

5. **y = b1*log(x) is a linear model.** *
Mark only one oval.

- TRUE
- FALSE

6. **Which of the variables in the mlb11 dataset from OpenIntro lab 7 had the highest R^2 value (or correlation) with the "runs" variable?** *

Mark only one oval.

- ◯ at_bats
- ◯ hits
- ◯ homeruns
- ◯ bat_avg
- ◯ strikeouts
- ◯ stolen_bases
- ◯ wins
- ◯ new_onbase
- ◯ new_slug
- ◯ new_obs