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## Using the t-test - Quiz

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### Question 1

1.0/1.0 point (graded)

Which of the following statements is **not** true?

- ☒ a. We need to assume that errors are i.i.d normally distributed to justify the linear model. ✓
- ☐ b. The t-distribution has fatter tails than the normal distribution.
- ☐ c. In testing hypotheses of the form  $H_0 : \beta_j = c$  vs.  $H_1 : \beta_j \neq c$ , the F-test and t-test are not equivalent.
- ☐ d. The t-distribution is part of the one parameter family.

### Explanation

As Prof. Duflo explained in lecture, in testing hypotheses of the form  $H_0 : \beta_j = c$  vs.  $H_0 : \beta_j \neq c$  (two-sided hypotheses), the F-test and t-test **are** equivalent. In particular, the t-test statistics are the square root of the F-test statistics.

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### Question 2

1/1 point (graded)

**True or False:** If you are interested in testing a hypothesis of the form  $H_0 : \beta_j > c$  vs.  $H_1 : \beta_j \leq c$ . The F-test and t-test are equivalent, since the t-test static and critical values are the square root of those for the F-test.

☐ a. True☒ b. False ✓

### Explanation

$H_0 : \beta_j > c$  is a one-sided hypothesis, and therefore you need a t-test. And in this case, the F-test and t-test are not equivalent.

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✓ Correct (1/1 point)

## Regressions, and Omitted Variable Bias

### Practical Issues in Running Regressions

due Dec 5, 2016 05:00 IST



### Omitted Variable Bias

due Dec 5, 2016 05:00 IST



### Module 10: Homework

due Nov 28, 2016 05:00 IST



## Discussion

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