



Bookmarks

- ▶ [Module 1: The Basics of R and Introduction to the Course](#)
- ▶ [Entrance Survey](#)
- ▶ [Module 2: Fundamentals of Probability, Random Variables, Distributions, and Joint Distributions](#)
- ▶ [Module 3: Gathering and Collecting Data, Ethics, and Kernel Density Estimates](#)
- ▶ [Module 4: Joint, Marginal, and Conditional Distributions & Functions of Random Variable](#)

Module 5: Moments of a Random Variable, Applications to Auctions, & Intro to Regression > Expectation, Variance, and an Introduction to Regression > A Preview of Regression - Quiz

A Preview of Regression - Quiz

🔖 Bookmark this page

Question 1

1/1 point (graded)

True or False: In linear regression, where the relationship between X and Y is expressed as $Y = \alpha + \beta X + U$, $\alpha + \beta X$ refers to the variation in Y that is “explained” by X , and U refers to the variation in Y that is “unexplained,” where $E[U] = 0$ and $Cov(X, U) = 0$.

☒ a. True ✓

☐ b. False

Explanation


This is true, and provides some of the useful intuition to keep in mind when we will start to go more in depth into linear regression. Two helpful things to keep in mind are that the expectation of the error term, $E[U]$, is equal to zero, and the error term and the independent variable X are uncorrelated.

Submit


You have used 1 of 1 attempts

▼ **Module 5: Moments of a Random Variable, Applications to Auctions, & Intro to Regression**

Moments of a Distribution and Auctions

Finger Exercises due Oct 31, 2016 at 05:00 IST 

Expectation, Variance, and an Introduction to Regression

Finger Exercises due Oct 31, 2016 at 05:00 IST 

Module 5: Homework

Homework due Oct 24, 2016 at 05:00 IST 

► **Exit Survey**

✓ Correct (1/1 point)

Show Discussion

Add A Post

© All Rights Reserved



© 2016 edX Inc. All rights reserved except where noted. EdX, Open edX and the edX and Open EdX logos are registered trademarks or trademarks of edX Inc.

