



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 8: Causality, Analyzing Randomized Experiments, & Nonparametric Regression > Causality > Causal Inference - Quiz

## Causal Inference - Quiz

🔖 Bookmark this page

### Question 1

1/1 point (graded)

Which of the following describes what is known as the “fundamental problem of causality”?

- ☐ a. Determining the direction of causality is often difficult
- ☒ b. Isolating a causal effect requires comparing something that we see, with something we do not see (the counterfactual) ✓
- ☐ c. You can never be sure whether a relationship is a correlation or a causal relationship
- ☐ d. It is impossible to account for all possible conditions/characteristics/variables that might impact the outcome of interest

### Explanation

The fundamental problem of causality is that determining causality requires us to compare something that we do see with something we do not see. Returning to the pill example, the ideal way to measure causality would be to take a person at a particular time, provide her with a pill and see what happens,

- ▶ [Module 5: Moments of a Random Variable, Applications to Auctions, & Intro to Regression](#)
- ▶ [Module 6: Special Distributions, the Sample Mean, the Central Limit Theorem, and Estimation](#)
- ▶ [Module 7: Assessing and Deriving Estimators - Confidence Intervals, and Hypothesis Testing](#)
- ▼ [Module 8: Causality, Analyzing Randomized Experiments, & Nonparametric Regression](#)

### **Causality**

[due Nov 21, 2016 05:00 IST](#)



### **Analyzing Randomized Experiments**

[due Nov 21, 2016 05:00 IST](#)



but also provide her with no pill and see what happens (and ideally, to repeat this process for a large number of people). By definition, we can observe at most one of the unit-action pairs and the associated outcome, which is the fundamental problem of causality.

Submit

You have used 1 of 2 attempts

✓ Correct (1/1 point)

### **Discussion**

**Topic:** Week 8 / Causal Inference - Quiz

Show Discussion

**Use of Randomization and  
Nonparametric Regression**

due Nov 21, 2016 05:00 IST



**Module 8: Homework**

due Nov 14, 2016 05:00 IST



- ▶ Module 9: Single and  
Multivariate Linear  
Models
- ▶ Exit Survey

© 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.

POWERED BY  
**OPEN**edX®

