

## MITx: 14.310x Data Analysis for Social Scientists

Heli



▼ Module 1: The Basics of R and Introduction to the Course

Welcome to the Course

Introduction to R

## **Introductory Lecture**

Finger Exercises due Oct 03, 2016 at 05:00 IST

### Module 1: Homework

Homework due Sep 26, 2016 at 05:00 IST

- Entrance Survey
- Module 2:
   Fundamentals of
   Probability, Random
   Variables, Distributions,
   and Joint Distributions
- Exit Survey

Module 2: Fundamentals of Probability, Random Variables, Distributions, and Joint Distributions > Random Variables, Distributions, and Joint Distributions > Properties of the Probability Distribution - Quiz

**■** Bookmark

## Question 1

(1/1 point)

True or false: For a particular probability function for a discrete random variable, each of the individual probabilities must be less or equal than one, but probabilities together must sum to one.

a. True	<b>~</b>				
o b. False	•				

#### **EXPLANATION**

True. As discussed in class, the probability function fx(x) for a discrete random variable X describes the probabilities associated with each value of X. Two useful properties for the probability function are that each of the individual probabilities must be less than or equal to 1, and their sum must be equal to 1. There was a mistake in the previous phrasing of the question, so we will accept both answers as valid. Thanks to those that pointed this out!

You have used 1 of 1 submissions

# Question 2

(1/1 point)

True or false: Probability density functions describe a continuous random variable in a similar way as probability functions describe a discrete random variable.

a. True

b. False

### **EXPLANATION**

True. As discussed in class, probability density functions are the continuous analog of a discrete variable's probability function. The probability density function depicts for all possible values of a continuous random variable the likelihood that the variable takes on that value.

You have used 1 of 1 submissions

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