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## Moments of a Distribution - Quiz

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### Question 1

1/1 point (graded)

True or False: A PDF is a complete description of the distribution of a random variable.

☒ a. True ✓

☐ b. False

### Explanation

True, a PDF does provide a complete description of the distribution of a random variable. In some cases, this can be more information than is necessary to capture or communicate at one point, so it is useful to have “moments” that can summarize a random variable.


Submit

You have used 1 of 1 attempts


✓ Correct (1/1 point)

▼ **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**

## Question 2

1/1 point (graded)

The \_\_\_\_\_ describes the value for which 50% of the values are greater, and 50% are smaller.

☐ a. Mean

☒ b. Median 

☐ c. Mode

☐ d. Moment

## Explanation

The median describes the point at which 50% of the values lie above and 50% of the values lie below. In other words, this is the point above and below which the integral of the PDF is equal to  $\frac{1}{2}$ .

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You have used 1 of 2 attempts

✓ Correct (1/1 point)

## Question 3

1/1 point (graded)

True or False: Another way of visualizing the median of a distribution is that the median is the balancing point of the density.

☐ a. True

☒ b. False ✓

### Explanation

This is false. The **mean**, or **expectation**, can be visualized as the balancing point of the density.

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You have used 1 of 1 attempts

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✓ Correct (1/1 point)

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