

Unit 3 - Week 0: Prerequisite

Course outline

How does an NPTEL online course work?

MATLAB

Week 0: Prerequisite

Quiz : Assignment 0

Assignment Solution

Week 1: Basics of Probability Theory

Week 2: Basics of Financial Markets

Week 3: Mean-Variance Portfolio Theory

Week 4: Mean-Variance Portfolio Theory- II

Week 5: Non-Mean-Variance Portfolio Theory

Week 6: Non-Mean-Variance Portfolio Theory- II

Week 7: Non-Mean-Variance Portfolio Theory- III

Week 8: Optimal Portfolio and Consumption

Week 9: Optimal Portfolio and Consumption- II

Week 10: Bond Portfolio Management

Week 11: Risk Management

Week 12: Applications with market data

Live Session: Mathematical Portfolio Theory

Text Transcripts

Assignment 0

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-09-14, 23:59 IST.

1) If $P(A) = \frac{5}{13}$, $P(B) = \frac{7}{13}$ and $P(A \cap B) = \frac{1}{13}$, then $P(A|B)$ equals :

1 point

- 0.2387
- 0.1429
- 0.3714
- 0.4622

No, the answer is incorrect.
Score: 0

Accepted Answers:
0.1429

2)

1 point

Suppose that we throw an unbiased dice twice. Let us denote the event of the outcome being an even number in the first throw, by A ,

and the event of the outcome being an odd number in the second throw, as B . Then $\frac{3P(A \cap B)}{2P(A)P(B)}$ equals :

- 1.5
- 1.75
- 2.0
- 2.25

No, the answer is incorrect.
Score: 0

Accepted Answers:
1.5

3)

1 point

Suppose that we play a game of tossing an unbiased coin three times. The organizer pays us an amount of 2,

if there is a head and we pay the organizer an amount of 0.5, if there is a tail. If the random variable X denotes the amount of loss or gain, and

X takes the values x_1, x_2, x_3 and x_4 , then $\sum_{i=1}^4 x_i$ equals :

- 3
- 4
- 7
- 9

No, the answer is incorrect.
Score: 0

Accepted Answers:
9

4)

1 point

Let X be a random variable on a probability space $(\Omega, \mathcal{F}, \mathbb{P})$, taking values $\{-2, -1, 0, 1, 2\}$, with the probability of each of these values being

$\frac{1}{5}$. Then the expectation $E(X)$ equals :

- 1
- 0
- 1
- 5

No, the answer is incorrect.
Score: 0

Accepted Answers:
0

5)

1 point

Let X_1, X_2, \dots be a sequence of independent and identically distributed random variables each with a mean of 0.3. Then the mean $E(S_{10})$

of the random variable $S_{10} = \sum_{i=1}^{10} X_i$ equals :

- 1.5
- 2
- 2.5
- 3

No, the answer is incorrect.
Score: 0

Accepted Answers:
3

6)

1 point

If the probability distribution for a random variable X is given by $P(X) = \begin{cases} k, & \text{when } x = 1 \\ 2k, & \text{when } x = 2 \\ 3k, & \text{when } x = 3, \end{cases}$ then k equals :

- 0.1333
- 0.1667
- 0.3334
- 0.5

No, the answer is incorrect.
Score: 0

Accepted Answers:
0.1667