Unit 2 - Week 1 - Revision of basic concepts from Mathematical finance

Assignment 1

The due date for submitting this assignment has passed. **Due on 2018-02-21, 23:59 IST.**

Submitted assignment

1) You are given three sets.

\[ A = \{1, 2, 3, 4, 5\}, \quad B = \{0, 2, 4, 6, 8\}, \quad C = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\} \]

Which of the following statements is true?

- \( B \subseteq C \)
- \( A \subseteq C \)
- \( A \subseteq B \)
- \( B \subseteq A \)

No, the answer is incorrect.

Score: 0

Accepted Answers:

- \( A \subseteq C \)

2) Which one of the following sets does 1 NOT belong to?

- \([1, 2]\)
- \([1, 2)\)
- \((1, 2]\)
- \((0, 2)\)

No, the answer is incorrect.

Score: 0

Accepted Answers:

- \([1, 2]\)

3) Which among the following sets is equal to \( \mathbb{R} \setminus [0, 1] \)?

- \((\infty, 0) \cup (1, \infty)\)

Score: 0

Accepted Answers:

- \((\infty, 0) \cup (1, \infty)\)
4) A boy tries to write a sequence $a_1, a_2, a_3, \ldots$ as follows.

$a_1 = 2$.

If the last term written currently is a multiple of 2, that is, it is an even number, then he adds 1 to it to get the next term.

If the last term written currently is not a multiple of 2, that is, it is an odd number, then he adds -1 to it to get the next term.

What is $a_5$ equal to?

- $0$
- $1$
- $-1$
- $2$

No, the answer is incorrect.
Score: 0
Accepted Answers: 2