**Homework 9**

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**Exercise 1**

1. Let the period 1, so that .

.

,

.

Thus, .

It holds for any period having the amount of of time.

1. Stock price for .



텍스트, 도표, 라인, 그래프이(가) 표시된 사진

자동 생성된 설명

**Exercise 2**

.

1. ,

so that the expected price of tomorrow is as follows:

,

,

.

1. , so that

.

**Exercise 3**

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1. , 6-months. Because it follows log-normal distribution,

,

.

The probability that a European call will be exercised:

.

1. The probability that a European put will be exercised:

if continuous.

.

**Exercise 4**

**.**

.

.

.

1. .
2. .

.

**Exercise 5**

**텍스트, 스크린샷, 소프트웨어, 멀티미디어 소프트웨어이(가) 표시된 사진

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Thus, . QED