**Assignment 2**

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Submit two files – one is the text file with answers and the other is the matlab file to t-square

1. The stock follows the GBM as where . And, the risk free rate is 3% (annualized continuously compounded yield). S\_0(today’s price) is 100. We consider T=2.
   1. Find the value of the exotic call option which pays out max( maximum price over time interval of [0,2] - 100, 0) at T=2.

**The price is 26.3043.**

* 1. Let t denote the first time that the stock price hits 110. Find the value of the derivative which pays the average price over [0,t] at t, the first moment that the stock price hits 110. If the stock price does not hit 110 till T=2, you receive the average price over time interval of [0,2] at T=2.

**The price is 94.0673.**