

FINC 623/ECON623
Homework Assignment—Monte Carlo Pricing of Options
Robert W. Kolb

Revised: January 26, 2009

Maximum team size: 3 persons

Stock Price	95.0000
Risk- free rate	0.0600
Sigma	0.2800
Exercise Price	100.0000
Days til Expiration	91.2500

Assignment:

Consider the data in the preceding table. The task is to price a plain vanilla call and put on this stock in two ways.

1. Use OPTION! to price the call and put. Report the exact Black-Scholes values for these two options.
2. Price the two options using Monte Carlo simulation. See Homework Template—Monte Carlo Analysis. Create a Monte Carlo analysis with 50,000 drawings by completing the homework template. After making sure that the spreadsheet is correct, you will need to run the simulation 20 times to complete the table on the following page. This will give a total of 1 million trial observations. Note: While you develop the spreadsheet, it is probably a good idea to change the calculation mode to manual.

Submit a printed document showing:

1. The exact price of the two options computed by OPTION!
2. A completed table of the form shown on the next page.

Do not send a spreadsheet!

Calculation Run	Computed Call Value for this Simulation Run	Average of this Computed Call Value and those Preceding	Computed Put Value for this Simulation Run	Average of this Computed Call Value and those Preceding
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

