

FINM2002 Derivatives/FINM6041 Applied Derivatives

Tutorial 5 Question

Question 1

Assume a 6-month European call option on a stock. The strike price is \$48. The underlying stock price is currently \$50. At the end of six months, the stock price will either be \$60 or \$42. The risk free rate is 12% p.a., continuously compounded. What is the price of this call option today?

Question 2

Assume a 6-month European call option on a stock. The strike price is \$51. The underlying stock price is currently \$50. Over each of the next two three-month periods it is expected to go up by 6% or down by 5%. The risk free rate is 5% p.a., continuously compounded. What is the price of this call option today?

Question 3

Use the same information in Question 2 to price a European put option.

Question 4

Assume a 6-months American put option on a stock. The strike price is \$42. The underlying stock price is currently \$40. Over each of the next two 3-month periods it is expected to go up by 10% or down by 10%. The risk free rate is 12% p.a., continuously compounded. What is the price of this American put option today?