Assignment1

Huanyu Liu

2/19/2019

Problem 1

(a) straddle price = 17.545761290311667

(b) straddle price = 17.902285762168567

(c) binary option price = 0.6362740310157092

Problem 2

American put price = 2.4180613817488674

American call price = 1.5029700662457506

Problem 3

(a) American put price = 1.4557609224633503
American call price = 0.34422877540352725

(b) straddle price = 1.6435276485572474.
put + call = 1.79999 > straddle price

For a straddle you have to exercise put and call at the same time, however, you can exercise put and call at different time if you buy them individually.

Problem 4

(a) Asian option by Monte Carlo = 3.287823190451338

(b)

Problem 5

(a) American put price = 24.970715366744134

(b)