Sample problem 11– One-period Binomials.

1. A stock price is currently $50. It is known that at the end of two months it will be either $53 or $48. The price per dollar of a two-month T-bill is $B(0,2 \text{ months}) = 0.99$.

a) What is the value of a two-month European call with a strike price of $49.00$?

b) What is the value of a two-month European put with a strike price of $49.00$?
2. A stock price is currently $50. It is known that at the end of six months it will be either $60 or $42. The price per dollar of a six-month T-bill is $B(0,6 \text{ months})=0.94.$

A) Calculate the value of a six-month European call option on the stock with an exercise price of $48.00.

B) Calculate the value of a six-month European put option on the stock with an exercise price of $52.00. Please notice that the exercise price is different than in part A.