Financial Mathematics classwork (2024/9/27)

Name:

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The call premium of a stock with strike price *K* = $110 and expiration date *T* = 1 year is $5. The put premium of a stock with strike price *K* = $100 and expiration date *T* = 1 year is $3. The continuously risk-free interest rate is *r* = 4%. For what stock price at *T* = 1 so that the profit of a long call is the profit of short put?

Solution



There are 3 possible cases:

Case (i) 110 < *S*(1)



Case (ii) 100 < *S*(1) < 110



Case (iii) *S*(1) < 100

