Option Pricing Class Problem

Finance 4335, November 7, 2023

Bitcoin, Inc., stock is currently worth \$56. Each year, it can change by a factor of 0.9 or 1.3. The stock pays no dividends, and the annual continuously compounded risk-free interest rate is 4%.

A. Calculate the price of a one-year European put option on Bitcoin, Inc. stock with an exercise price of \$60.

B. Calculate the price of a one-year European call option on Bitcoin, Inc. stock with an exercise price of \$60.

C. Calculate the price of a two-year European put option on Bitcoin, Inc. stock with an exercise price of \$60.

D. Calculate the price of a two-year European call option on Bitcoin, Inc. stock with an exercise price of \$60.