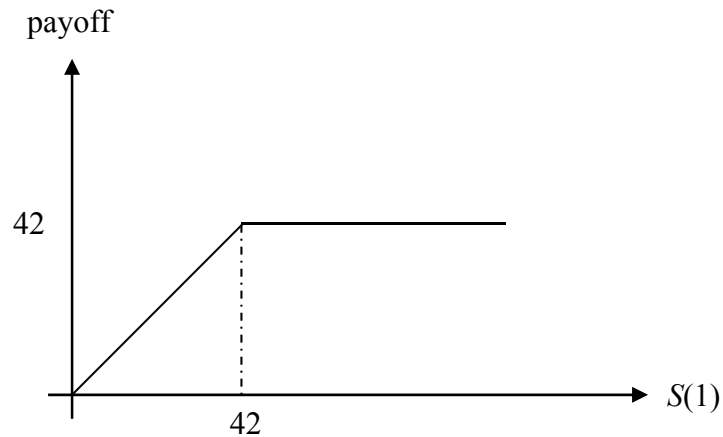


41. Assume the Black-Scholes framework. Consider a 1-year European contingent claim on a stock.

You are given:

- (i) The time-0 stock price is 45.
- (ii) The stock's volatility is 25%.
- (iii) The stock pays dividends continuously at a rate proportional to its price. The dividend yield is 3%.
- (iv) The continuously compounded risk-free interest rate is 7%.
- (v) The time-1 payoff of the contingent claim is as follows:



Calculate the time-0 contingent-claim elasticity.

- (A) 0.24
- (B) 0.29
- (C) 0.34
- (D) 0.39
- (E) 0.44