Quiz For Lecture # 11

European Call Option using Black-Scholes/Merton

Consider a European call option on a stock when there are ex-dividend dates in two months and five months. The dividend on each ex-dividend date is expected to be 0.$ 50. The current share price is $50 and the strike price is $50. The stock price volatility is 20% per annum and the risk free rate is 8.329% per annum, the volatility is continuously compounded, the interest rate is a simple interest rate, the time to maturity is six months. Calculate the call option's price and delta using Black-Scholes/Merton.

(Reminder: Showing the *essential* steps along the way will enhance your chances of partial credit in case you make an error.)[1]

[1] This question is taken from a former midterm exam. It was worth 25% of the entire midterm.