

- (A) 7.32 million
- (B) 7.42 million
- (C) 7.52 million
- (D) 7.62 million
- (E) 7.72 million

8. You are considering the purchase of a 3-month 41.5-strike American call option on a nondividend-paying stock.

You are given:

- (i) The Black-Scholes framework holds.
- (ii) The stock is currently selling for 40.
- (iii) The stock's volatility is 30%.
- (iv) The current call option delta is 0.5.

Determine the current price of the option.

- (A) $20 - 20.453 \int_{-\infty}^{0.15} e^{-x^2/2} dx$
- (B) $20 - 16.138 \int_{-\infty}^{0.15} e^{-x^2/2} dx$
- (C) $20 - 40.453 \int_{-\infty}^{0.15} e^{-x^2/2} dx$
- (D) $16.138 \int_{-\infty}^{0.15} e^{-x^2/2} dx - 20.453$
- (E) $40.453 \int_{-\infty}^{0.15} e^{-x^2/2} dx - 20.453$