72. Assume the Black-Scholes framework.

The continuously compounded risk-free interest rate is 7%.

With respect to a stock S, you are given:

(i) The current stock price, $S(0)$, is 10.

(ii) The stock pays dividends continuously at a rate proportional to its price. The stock's volatility is 10%.

(iii) The price of a 6-month European gap *call* option on S^2, with a strike price of 95 and a payment trigger of 120, is 5.543.

(iv) The price of a 6-month European gap *put* option on S^2, with a strike price of 95 and a payment trigger of 120, is −4.745.

(v) The strike price and payment trigger refer to the value of S^2, rather than S.

Calculate the dividend yield.

(A) 2.0%

(B) 3.5%

(C) 4.0%

(D) 4.5%

(E) 5.5%