Question #1 of 4 Question ID: 1469227

We can use the risk-free rate to value an option with a one-period binomial model because:

combining options with the underlying asset in a specific ratio will produce a risk-**A)** free future payment.

- combining put and call options in specific ratio can produce a risk-free future **B)** payment.
- **C)** options investors are risk-neutral, on average.

Question #2 of 4 Question ID: 1469228

One method of valuing a call option with a one-period binomial model involves:

- finding a combination of the call option and the underlying that will have the same **A)**value regardless of the price of the underlying at expiration.
- **B)** discounting the average call value at expiration by the risk-free rate.
- using the probabilities of an up-move and a down-move to get the expected value of **C)** the payment at expiration.

Question #3 of 4 Question ID: 1469226

In order to value an option with a one-period binomial model, three things an analyst would need to know are:

- **A)** the probability of an up-move, the option exercise price, and the current asset price.
- the risk-free rate, the volatility of the price of the underlying, and the current asset price.
- the risk-adjusted discount rate, the volatility of the price of the underlying asset, and option exercise price.

Question #4 of 4 Question ID: 1469229

Consider a stock that will have a value of either 22 or 14 one year from now. If the risk-free rate is 5%, what is the ratio of shares to short call options with an exercise price of 18 for a portfolio that will have the same value at expiration regardless of the stock price at the end of the year?

- **A)** 0.50.
- **B)** 0.48.
- **C)** 0.53.