FINM2063 Introduction to Finance

Chapter 9 Exercises

1. The price of a stock is $39, and a six-month call with a strike price of $35 sells for $8.
2. What is the option’s intrinsic value?
3. What is the option’s time premium?
4. If the price of the stock rises, what happens to the price of the call?
5. If the price of the stock falls to $36, what is the maximum you could lose from buying the call?
6. What is the maximum profit you could earn by selling the call uncovered (naked)?
7. If, at the expiration of the call, the price of the stock is $35, what is the profit (or loss) from buying the call?
8. If, at the expiration of the call, the price of the stock is $35, what is the profit (or loss) from selling the call naked?
9. If, at the expiration of the call, the price of the stock is $46, what is the profit (or loss) from buying the call?
10. If, at the expiration of the call, the price of the stock is $46, what is the profit (or loss) from selling the call naked?
11. The price of a stock is $29. A put option to sell the stock at $30 is currently selling for $3. You buy the stock and the put. Complete the following table and answer the questions.

|  |  |  |  |
| --- | --- | --- | --- |
| Price of the stock | Profit on stock | Profit on put | Net profit |
| $20 |  |  |  |
| 25 |  |  |  |
| 30 |  |  |  |
| 35 |  |  |  |
| 40 |  |  |  |
| 50 |  |  |  |

1. What is the maximum possible profit on the position?
2. What is the maximum possible loss on the position?
3. What is the range of stock prices that generates a profit?
4. What advantage does this position offer?
5. Is it more valuable to own an option to buy a portfolio of stocks or to own a portfolio of options to buy each of the individual stocks? Say briefly why.
6. Three six-month call options are traded on Hogswill stock:

|  |  |
| --- | --- |
| Exercise price | Call option price |
| $ 90 | $ 5 |
| 100 | 11 |
| 110 | 15 |

How would you make money by trading in Hogswill options?