

Chapter 15 Options Markets

1. c is false.
2. c is the only correct statement.
3. Each contract is for 100 shares: = \$725

4.

	Cost	Payoff	Profit
Call option, X = 85	9.40	5.00	-4.40
Put option, X = 85	1.55	0.00	-1.55
Call option, X = 90	5.50	0.00	-5.50
Put option, X = 90	3.20	0.00	-3.20
Call option, X = 95	3.00	0.00	-3.00
Put option, X = 95	5.20	5.00	-0.20

5. In terms of dollar returns:

	Price of Stock Six Months From Now			
Stock price:	\$80	\$100	\$110	\$120
All stocks (100 shares)	8,000	10,000	11,000	12,000
All options (1,000 shares)	0	0	10,000	20,000
Bills + 100 options	9,360	9,360	10,360	11,360

In terms of rate of return, based on a \$10,000 investment:

	Price of Stock Six Months From Now			
Stock price:	\$80	\$100	\$110	\$120
All stocks (100 shares)	-20%	0%	10%	20%
All options (1,000 shares)	-100%	-100%	0%	100%
Bills + 100 options	-6.4%	-6.4%	3.6%	13.6%

6.

- a. Purchase a straddle, i.e., both a put and a call on the stock. The total cost of the straddle would be: $\$10 + \$7 = \$17$
- b. Since the straddle costs \$17, this is the amount by which the stock would have to move in either direction for the profit on either the call or the put to cover the investment cost (not including time value of money considerations).

22.

- a. Conversion value of a convertible bond is the value of the security if it is converted immediately. That is:

$$\begin{aligned}\text{Conversion value} &= \text{market price of common stock} \times \text{conversion ratio} \\ &= \$40 \times 22 = \$880\end{aligned}$$

- b. Market conversion price is the price that an investor effectively pays for the common stock if the convertible bond is purchased:

$$\begin{aligned}\text{Market conversion price} &= \text{market price of the convertible bond} / \text{conversion ratio} \\ &= \$1,050 / 22 = \$47.73\end{aligned}$$