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OPTIONS

TUTORIAL

## Series 7 Options Supplement

Testgeek Exam Prep. LLC
Seattle, WA.

# TestGeek Exam Prep, LLC Unique Solutions to Test Taking 

## OPTIONS TUTORIAL FOR SERIES 7

## SERIES 7 OPTIONS TUTORIAL

## Goals

1. Tools to recognize the different option strategies - Above all else, when solving options questions on the test, the first thing you must do is to determine which option strategy you're dealing with
2. Tools to solve the different option strategies - Each option strategy is different. You don't solve hedges or straddles or spreads the same way. They are all different.

The Series 7 exam has reduced the number of option questions - approximately 20 questions

## BASIC DEFINITION

What is an option? A contract between buyer and seller

Buyer= holder= owner=long, Seller=writer=short

Buy a Call- right to buy 100 shares of stock @ a specified price/time = Bullish
Sell a Call- obligation to sell 100 shares of stock @ specified price/time if buyer exercises-Bearish Buy a Put- right to sell 100 shares of stock @ a specified price/time = Bearish
Sell a Put- obligation to buy 100 shares of stock @ specified price/time if buyer exercises-Bullish
(Rights and obligations are only relevant if the option is exercised- which occurs less than 5\% of the time. Many of the text books tell you to assume they are always exercised. On the test, very few will be exercised. The reason they aren't exercised- you lose leverage.)

There are 3 outcomes to an option -
-exercised
-expire
-traded (closing the position). Most options will be traded or they expire. (Remember, very few are exercised)

## STRATEGIES

## 1. TRADING INDIVIDUAL OPTIONS-

Options are traded on an exchange, just like stocks and bonds. The price at which they trade is called the premium. This price/premium constantly fluctuates based upon:

Time Value and Intrinsic Value (Premium = Time Value + Intrinsic Value)

- The more time we have before expiration, the more valuable the option is.
- Intrinsic value of an option is directly tied to the price of the underlying stock:

Intrinsic value (Calls) = Current Price of Stock > Strike Price Intrinsic value (Puts) = Current Price of Stock < Strike Price
(An option with intrinsic value is said to be "in the money") The intrinsic value is reflected in the premium of the option dollar for dollar.

Also, please note, that intrinsic value is when the stock price is simply above the strike price. It does not have to be above the breakeven!

Let's take a look at an investor who trades an option:

## CALLS

Investor buys 1 XYZ Aug 40 call @ 3 when XYZ is trading @ \$36. (Note, the investor paid \$300 for this option when the underlying stock was traded at $\$ 36 /$ sh. The price of the stock is really irrelevant except for the fact we want it to go above the strike price of $\$ 40 / s h$.) If at, or near, expiration, the stock is trading at \$48 (Aha! The stock is now above the strike price. The option is now "in the money") and the investor closes their position, what is the profit or loss? (Since we bought the option originally to "open" our position, we will now sell the option on the exchange to "close" our position. The option's premium has increased because of the intrinsic value.)
Always do a T-chart when computing option problems to track the money out of investors account or into the account.

| Out (Buy) $\ln ($ Sell $)$ |  |
| :--- | :--- |
| $-\$ 300$ | $+\$ 800$ |
|  |  |
|  | $+\$ 500$ |

Notice the $\$ 300$ out of the account for the original purchase. Where did the $\$ 800$ come from? Remember, the price of the option is determined by the time value and the intrinsic value. Since the trade was done at expiration there is no time value. Therefore, the only value the option has is the intrinsic value - the stock is at $\$ 48 /$ sh, the strike price is $\$ 40$ - the stock price is above the strike price of the option, therefore, $\$ 8$ or $\$ 800$ of intrinsic value. Notice also, we did not exercise the option. We did not buy the stock for $\$ 4000$ and then sell the stock for $\$ 4800$. If we had, it result in the same $\$ 500$ net profit. However, which would you rather do - spend $\$ 300$ to make $\$ 500$, or spend over $\$ 4000$ ?! Ah, the power of leverage! This is the advantage of options.

Remember, when "closing" an option, you always do the opposite transaction (buy/sell) at the intrinsic value.

## Buying (Long) Call- (Rt. To Buy) - BULLISH

BE= SP + Prem. - \$43/sh.
Max Gain= unlimited
Max loss = prem. - \$300

## Whenever you BUY an option the most you can ever lose is the premium!!!!

Let's look at the next example:
An investor sells 1 XYZ Apr 40 Call @ 3 when XYZ is trading at $\$ 36$. At or near expiration, the stock is trading for $\$ 48 /$ sh. (Is this option in the money? Yes! The stock price is above the strike price) and the investor closes their position. What is their profit or loss?

| Out | In |
| :---: | :---: |
| $-\$ 800$ | $+\$ 300$ |
|  |  |
| $<\$ 500>$ |  |

Short Call- (Oblig. To Sell)- BEARISH - (uncovered or naked call)
Investors often sell options to collect the premium
BE= SP + Prem. - \$43/sh.
Max gain= premium $-\$ 300$
Max loss= unlimited
If you compare the two problems so far, you notice one investor's gain is the other investor's loss. We call this - Zero net sum= whatever one investor (buyer) gains the other (seller) loses and vice versa.

## PUTS

An investor buys 1 ABC Nov 60 put @ 2 when ABC is trading at $\$ 64 /$ sh. If, at or near, expiration the stock is trading at $\$ 51$ and the investor closes his position, what is the profit or loss? (Put Intrinsic Value = CMV < SP)

| Out | In |
| :--- | :---: |
| $-\$ 200$ | $+\$ 900$ |
|  | $+\$ 700$ |

## Long Put -(Rt. To Sell) - BEARISH

BE= SP - Prem. (per share price)
Max gain = SP - Prem. (total dollar amount 00) - \$5800
Max loss= premium

## Short Put - (Oblig. To Buy) - BULLISH

BE= SP - Prem. (per share price) $\$ 60-\$ 2=\$ 58 /$ sh.
Max gain= premium $-\$ 200$
Max loss = SP - Prem. (total dollar amount 00) - \$5800


## DIAGRAM 1 - The Basic Options Quadrant

This diagram is a basic options quadrant you have seen many, many times before. However, if you see it properly, you can easily see: market attitude, BE's, maximum gains and maximum losses, thus removing this information from rote memory.
Firstly, notice the direction of the arrows. The head of the arrow is always pointing in the direction of the maximum gain. The tail of the arrow is always pointing to the maximum loss. For example, take selling calls. Notice the head of the arrow is pointing to the premium. Thus, the maximum gain when selling calls is the premium. Now, look at the tail of the arrow. It is pointing to the infinity symbol. Therefore, the maximum loss is unlimited.
Next, the BE's. Notice for both buying AND selling calls the BE always lies above the horizontal axis (which can represent any strike price). It lies above the hypothetical strike price by the amount of the premium. Thus, BE for buying and selling calls is S.P. + Premium. Similarly, the BE for the puts is S.P. Premium.
Also, note on Page 19 our first option strategy - Individual Options. Investors will trade (buy or sell) individual options to merely speculate on the direction of the underlying stock. Remember, whichever transaction you do to open your position, you must do the opposite transaction to close your position. When closing your option position, you will buy or sell the option for its intrinsic value.

HEDGES- investing in stock (Only option strategy that contains a stock position) and using an option to either:

1. Protect-(guard against risk, hedge)- buy
2. Enhance profit-( increase return-generate income)-sell

Hint: To hedge, match the option to the risk direction (opposite of stock attitude). Also, always buy for protection and sell for profit/income.

Whenever long stock - Sell Call or Buy Put- never, ever anything else!
An investor is long 100sh. of IBM @ $\$ 90 /$ sh. and sells 1 IBM May 90 call at 3 . What is the BE?


## Long Stock/Long Put

BE= (Just do a T-chart, the answer falls to the bottom)
Max gain= unlimited
Max loss= St-SP+P
Long Stock/Short Call (covered call) (not appropriate for buy and hold strategies or for raging bull market) (appropriate in neutral, stable, slightly down market)
$B E=$ Just do a $T$-chart
Sally is long 100 shares XYZ @ $\$ 50$. She fears a near-term correction but overall she remains bullish. Which of the following could she use to profit from this strategy?
A. Buy 50 Call
B. Buy 50 Put
C. Sell 55 Call
D. Sell 55 Put

Sell short: borrow shares from BD and sell on open market. Hoping to buy back stock at lower price. To hedge short stock: can ONLY buy call or sell puts (Risk direction)

Investor sell short 100 shares XZY @ \$70 and buys 1 xyz Jul 70 call @ 2
BE= $\$ 68$
If market goes up, the call gives the right to buy @ 70, exercise and buy @ 70. Net and loss is premium
Max loss = premium
Max gain = break even

## Short stock/Short put

Investor sells short 100 XZY at $\$ 80$ and writes 1 XYZ 75 put @ 3 . What is the BE ?
A. 83
B. 78
C. 77
D. 72

The investor sells short 100 XZY at $\$ 80$ and writes 1 XYZ 75 put @ 3 . The stock declines to 72 and the put is exercised. What is the investor's gain or loss?

| Out | In |
| :---: | :---: |
| $\$ 7500$ | $+\$ 8000$ |
|  | $+\$ 300$ |
|  |  |
|  | $+\$ 800$ gain |

A. 1100 gain
B. 800 gain
C. 300 loss
D. Unlimited

Buy 300 shares at 50
Sell 3 XYZ 55 calls @ 2
Multiple lots don't matter when it comes to breakeven.
Solve these as if there were only 1 lot.
The only time it matters if asking for profit or loss.

Buy 300 XYZ @ \$50
Sell 5 XYZ 55 calls @ 2
Remember when you Sell 1 XYZ 50 call @ 3 it is an uncovered call. Max loss is unlimited.
To cover the call you need to own the stock. However, if you own less round lots of stock than he number of calls you've sold, then some of the calls would be uncovered therefore:

Max loss = unlimited! Ratio writing.


## Diagram 2 Hedges

There are several easy things we can see from the hedge diagram. When you are long stock, the ONLY options you would EVER consider are the long put and short call. EVER! NO EXCEPTIONS! That is because the options always cover the RISK direction of the stock. So, in a test question, if you notice the investor owns the stock you can immediately eliminate a long call and a short put. Conversely, if you are short stock, the only options you EVER consider are the log call and the short put. EVER! NO EXCEPTIONS! Also, as my father once told when I was a teenager - ALWAYS BUY PROTECTION! When an investor wants to protect or guard against risk, we always BUY the option. Therefore, when we want to enhance profit on the stock, we always SELL the option.

STRADDLES: Buying both types or selling both types (types= calls or puts)

## LONG STRADDLE

Long 1 XYZ Sept 30 call @ 3
Long 1 XYZ Sept 30 put @ 2
Both options are identical except 1 call and 1 put
Bullish or bearish? Yes. Playing both sides of market. Market must move 5 points in either direction to breakeven. Two break evens.

| Out | In |
| :--- | :--- |
| $-\$ 300$ |  |
| $-\$ 200$ |  |
|  |  |
| $-\$ 500$ |  |

Used when unsure of the direction and assuming a big move (volatility). News that will greatly impact the stock.

- When a company is about to announce earnings
- When a company is going to issue a report
- Pharma releases third stage FDA trials

The stock price must move outside of either BE to make a profit
$B E=S P+$ both premiums $(30+5=35)$
$B E=S P-$ both premiums $(30-5=25)$
Max gain = unlimited
Max loss = both premiums (Remember-whenever you buy options, the most you can ever lose is the premium)

## SHORT STRADDLE

Sell 1 XYZ 30 call @ 3
Sell 1 XYZ 30 put @ 2

Bullish or bearish? NO. Anticipating market remains stable.
$\mathrm{BE}=\mathrm{SP}+$ both premiums $(30+5=35)$
$\mathrm{BE}=\mathrm{SP}-$ both premiums $(30-5=25)$
Max gain = both premiums
Max loss = unlimited
When would you write a short straddle? Whenever you think the market will be stable.
The stock price must be inside either BE to make a profit.

COMBINATION- A straddle $w /$ different strike prices - still a long straddle, still has 2 break evens, still used for volatility

Long 1 XYZ 40 call @ 3
Long 1 XYZ 45 put @ 1
I. 49
II. 44
III. 43
IV. 41

ALWAYS add to the calls, subtract from the puts -
$40+4=44$
$45-4=41$

An investor expects news to be released on XYZ that he believes will greatly impact the stock but is unsure of the direction. As an R.R., which would you recommend the investor to do?
a. Buy a call
b. Sell short against the box
c. Buy a straddle
d. Sell a call

Sally writes a combination she is:
a. Bullish
b. Bearish
c. Neutral
d. Consolidated

Writes = sells, combination = straddle
When we sell a straddle, we anticipate a stable market, or in other words, we are neutral.
Remember - A combination is just a straddle with different strike prices! From a strategy standpoint, they are used for the exact same reason as straddles.


SPREADS: Buying and selling same option
Long 1 XYZ 30 call @ 4
Short 1 XYZ 40 call @ 2

| Out | In |
| :---: | :---: |
| $-\$ 400$ | $+\$ 200$ |
|  |  |
| $-\$ 200$ |  |
| (Net debit) |  |

Bought for a net premium for \$200.
Acting collectively, the net premium tells you which option is dominant (Long Call).
Net premium = spread
BE= C.A.L. (Call, Add Net Prem., Lower S.P.) $=$ Net Prem. + lower strike price $(2+30=32)$
(Note: disregard the "-" sign)
Max loss = premium (\$200 - whenever you buy...)
Max gain and loss ALWAYS add up to difference between strike prices
Difference between $\mathrm{S} . \mathrm{P}=10$. Loss is 2 . Max gain, therefore is 8
Long 1 XYZ 70 call @ 3
Write 1 XYZ 80 call @ 2

| Out | In |
| :---: | :---: |
| $-\$ 300$ | $+\$ 200$ |
|  |  |
| $-\$ 100$ |  |
| (Net debit) |  |

$B E=71$
Max Gain= 900
Max loss= 100
"Net debit spread"
Notice in both call spreads the long call has the higher strike price, which in turn, creates the debit. It is the more "dominant" option and therefore this spread is bullish. Remember: Whichever option is more dominant, determines the market attitude, i.e. bullish or bearish

Buy 1 XYZ 50 call @ 3
Sell 1 XYZ 40 call @ 6

| Out | In |
| :---: | :---: |
| $-\$ 300$ | $+\$ 600$ |
|  |  |
|  | $+\$ 300$ |
| (Net credit) |  |

In this example, we have "sold" the options for a net credit of $\$ 300$. Whenever you sell options, the max. GAIN is the premium
$B E=43$
Max Gain= 300
Max loss= 700
Since the short call is more dominant, it is a bearish call spread.

Long 1 XYZ 30 put @ 3
Write 1 XYZ 40 put @ 5

| Out | In |
| :---: | :---: |
| $-\$ 300$ | $+\$ 500$ |
|  |  |
|  | $+\$ 200$ |

(Net credit)

BE = P.S.H. (Puts, Subtract Net Prem., Higher S.P)
$B E=38$
Max Gain = \$200
Max loss = \$800
Credit put spread. Sold puts = bullish.

Buy 1 XYZ 70 put at 4
Write 1 XYZ 60 put at 1

| Out | In |
| :--- | ---: |
| $-\$ 400$ | $+\$ 100$ |
|  |  |
| $-\$ 300$ |  |
| (Net debit) |  |

$B E=67$
Max Gain = \$700
Max loss = \$300
Debit put spread. Bought puts = bearish.

## SPREADS WITHOUT PREMIUMS

FOR CALL OPTIONS THE LOWER STRIKE PRICE = HIGHER PREMIUM
FOR PUT OPTIONS THE HIGHER STRIKE PRICE = HIGHER PREMIUM
(Again, remember: the option $w /$ the higher premium is more dominant and determines the market attitude)

Investor is long 1 XYZ 80 call and short 190 call. Which are true?
I. Bullish
II. Bearish
III. Debit
IV. Credit

The long 80 call would have a larger premium, therefore, be more dominant and create a net debit and would be bullish. (If you need to, make up the premiums and do a T-chart)

Investor writes 1 XYZ 40 put and buys 30 put. Which are true?
I. Bullish
II. Bearish
III. Debit
IV. Credit

The short put would have the larger premium, would be more dominant and create a net credit and therefore is bullish.

## SPREADS WIDENING/NARROWING

Please don't worry too much about the concept of widening or narrowing. All they will ask is WHICH spreads will narrow or which spread will widen. DEW/CEN (DEW=Deb needs to Exercise or she will Widen, Cred. Expires, Narrow)

An investor buys 1 XYZ Nov. 60 call at 3 and writes 1 XYZ Nov. 70 call at 1 . The investor will maximize their profit if

$$
\begin{array}{ll}
\text { I } & \text { the spread widens } \\
\text { II } & \text { The spread narrows } \\
\text { III } & \text { exercises both options } \\
\text { IV } & \text { allows both options to expire }
\end{array}
$$

Again, if we don't worry too much about what widening and narrowing mean, we know this is a debit spread and therefore we want to exercise and widen (DEW). That is the easiest way to get this question correct and, besides, there is only one question on it!!!


## ADMINISTRATIVE AND COMPLIANCE

Timeline for options accounts (2 or 3 questions)

1. Determine suitability
2. Options disclosure document given (at or prior to account approval)
3. Registered options principal (ROP)- approved
4. Trading
5. Options agreement signed and returned within 15 days from ROP approval
6. Closing transactions only if Opt Agreement is not returned

CBOE - Chicago Board Options Exchange
OCC (Options Clearinghouse Corporation)
Issues and standardizes options
All option contracts are standardized - Strike prices, expiration and settlement (Not premiums)
Settlement of traded option ( $\mathrm{T}+1$ )
Exercising options (stock trade - T+3)
Assignment-When the OCC receives an exercise notice from a B/D. Which method must the OCC use when assigning exercise notices to $\mathrm{B} / \mathrm{D}$ 's on the short side of the contract?
a. FIFO
b. LIFO
c. Random
d. Tidily-winks

Which method may a BD use when assigning exercises notices to customers?
I. FIFO
II. LIFO
III. Random

Or any fair method

1. Cease trading $3^{\text {rd }}$ Friday @ 4:00 p.m. EST
2. Can exercise up to $5: 30$ p.m. EST
3. Options in the money at end of trading will automatically be exercised by the OCC
4. Expiration - Saturday following $3^{\text {rd }}$ Fri at $11: 59 \mathrm{pm}$

## Options advantage = leverage

Therefore the options exchange places limits on the number of contracts you can buy, sell or exercise on the same side of the market.

If 75 K is the position limit, would these positions violate limits?
Buy 40 K call
Sell 40K put
Yes. Buying calls and selling puts are both bullish and therefore on the same side of the market
Which of the following pairs would be aggregated to determine positions limits?
i. Buy calls, sell calls
ii. Buy calls, sell puts
iii. Buy puts, sell puts
iv. Buy puts, sell calls

## NON-EQUITY OPTIONS

All non-equity options are settled in cash, hence the term - non-equity (The multiplier for index options is still $=100$ ). Unlike equity options that contain 100sh of stock underlying them.

## Index Options -

S\&P 500 (SPX)
S\&P 100 (OEX)

An investor buys 1 OEX Jun 420 call at 12. If the OEX appreciates to 445 and the investor exercises, which of the following is true?
a. Investor will receive the aggregate amount of cash of the premium and the intrinsic value
b. Investor will receive cash equal to the intrinsic value as determined at close of day $x$ the multiplier of 100
c. Investor will receive 100sh of stock composite within the index
d. Investor will receive the difference of 445 and 420

VIX - This is an index that tracks the volatility of stocks. It is referred to by investors as the "fear index".

The VIX is known as the fear index. It tracks the volatility of stocks of which of the following?
a. Dow Jones Industrials
b. S\&P 100
c. Russell 2000
d. S\&P 500

American vs. European Options - The only real difference between the two is when you may exercise. European options may only be exercised on expiration and American options, of course, may be exercise anytime.

American options differ from European options in that:
a. They can be traded only on the last day of trading
b. They can be exercised anytime
c. They are settled in cash
d. They have premiums

Foreign Currency Options - Foreign currency options are often used by companies that import or export to hedge the fluctuation of currencies. Since the U.S. \$ is the world based currency, options are ONLY on foreign currencies. Options on U.S. \$ DO NOT exist! (Remember, hedges are used to protect the risk!)
For U.S. Imp/Exp = EPIC - Exporters buy Puts, Importers buy Calls
For Japanese Imp/Exp = ECIP - Exporters buy Calls, Importers Buy Puts

Boeing imports raw materials from Tokyo with payment in Yen expected in 30 days. However, they fear the U.S. \$ will be falling. Which of the following can Boeing use to protect their purchase?
a. Buy Yen calls
b. Buy Yen Puts
c. Buy U.S. \$ calls
d. Buy U.S. \$ Puts

EPIC - You can immediately eliminate answers $C$ and $D$ since they don't exist. Then you have to take the inverse on the U.S. \$ falling - the Yen rising. This would mean Boeing would have to exchange more \$'s for Yen. Therefore, match the option to the risk - Importers Buy Yen calls!

A Japanese company exports electronic parts to a U.S. distributor with U.S.\$ to be received in 30 days. However, they believe the $\$$ will decline and want to protect their sale. They most likely would:
a. Buy Yen calls
b. Buy Yen puts
c. Buy U.S. \$ calls
d. Buy U.S. \$ puts

ECIP - Japanese exporters buy Yen calls

## TAXATION ON OPTIONS

Capital gains/losses - The premiums paid or received are ALWAYS taxed as short-term capital gains/losses.

## Cost Basis/Sales Proceeds -

1. If an investor buys a call and then exercises the call, the premium is added to the cost of the stock.
2. When hedging stock, how does the premium on the options affect the cost basis or sales proceeds for tax purposes? Look at which option you are using. If the option puts you in position to sell stock (Buying puts, selling calls), the premium only affects the sale proceeds. If the stock put you in position to buy stock (Buying calls/Selling puts), then it would affect the cost basis. Another way to remember this is: which hedges do you buy puts or sell calls? Long hedges. So with long hedges, the premium will affect only the sale proceeds. With short hedges, you would either buy a call or sell a put, therefore, the premiums only affect the cost basis.

An investor is long 100sh of MSFT at $\$ 36$. He sells 1 MSFT May 40 call at 3 . The stock appreciates to $\$ 45$ and the call is exercised. Which of the following is true?

| Out | In |
| :---: | ---: |
| $\$ 3600$ | $+\$ 300$ <br> $+\$ 4000$ |
|  |  |
|  |  |

[^0]An investor sells short 100sh XYZ at $\$ 75$ and simultaneously writes $1 X Y Z$ Jun 70 put at 2 . The stock declines to $\$ 72$ and the put is exercised. For tax purposes, which is true?

| Out | In |
| :---: | :---: |
| $\$ 7000$ | $+\$ 7500$ |
|  | $+\$ 200$ |

I the cost basis is $\$ 75 /$ sh.
II the cost basis is $\boldsymbol{\$} \mathbf{7 0} / \mathbf{s h}$.
III the sale proceeds are $\$ 75 /$ sh.
IV the sale proceeds are $\mathbf{\$ 7 7 / s h}$.

Holding Period- Since you are guaranteed against loss when you own a protected put, the IRS suspends the holding period on the stock for the period you owned the put.

An investor buys 100sh of XYZ at $\$ 50 /$ sh. on Jun. 30, 2011. They then purchase 1 XYZ Apr 50 put on Nov. 30, 2011. The put then expires and the investor sells their 100sh at $\$ 60$ on Jul. 30, 2012. For tax purposes, the holding period for the investor will be
a. 8 months
b. 12 months
c. 13 months
d. 5 months

The investor owned the stock for 13 months but since they also owned the protective put for 5 months, the net holding period is 8 months.

## OPTIONS CHEAT SHEET

## - INDIVIDUAL OPTIONS

Closing the positions

- Call: Intrinsic value $=C M V s>S P$
- Putt: Intrinsic value $=\mathrm{CMVs}<\mathrm{SP}$


## - HEDGES

- Investing in stock and using an option to either:
$B E=T$
- Protect the stock
- Guard against risk: "hedge"
- Enhance the profit
- Generate income, increase return
- Covered Call is: owning stock and selling a call. This is a way to make money in a neutral to Bear market when you sell a call and receive the premium
- STRADDLE/COMBINATION( straddle w/ different strike prices)
- Buying Call and Put or selling Call and Put
- Two breakevens: $\mathrm{SP}=+/$ - Both Premiums
- Volatility-Long straddle, Stability(neutral)-Short straddle


## - SPREADS

- Buying and selling Call or buying and selling Put
- Break Even:
- Call Spread: Add net premium to lower strike price; "CAL" Lower S.P. more dominant (higher premium)
- Put Spread: Subtract net premium from higher strike price; "PSH"

Higher S.P. more dominant (higher premium)

- Net "-"(debit) = Max loss, Net "+"(credit)= Max gain
- Max loss + max gain = Difference between strike prices
- Higher premium = more dominant option(determines market attitude)
- Debit Exercise Widen: DEW
- Credit Expire Narrow: CEN


## OPTIONS PRACTICE EXAM

1. If a customer buys 1 FLB Oct 50 call at 3 and she exercises the option to buy 100 shares when the market is at 60 , what is the cost basis of the 100 shares?
A) 5300 .
B) 6000 .
C) 6300 .
D) 5000
2. An investor owning an option contract liquidates the position. The liquidation is
A) An opening sale.
B) An opening purchase.
C) A closing purchase.
D) A closing sale.
3. When must a new options customer return a signed option agreement?
A) Within 15 days of the account approval.
B) Before the account is approved by a registered options principal.
C) Before the first order is entered.
D) Within 15 days of the first trade
4. Which of the following investors are bearish?
I. Buyer of a call.
II. Writer of a call.
III. Buyer of a put.
IV. Writer of a put.
A) I and II.
B) I and IV.
C) III and IV.
D) II and III.
5. All of the following would affect option premiums EXCEPT the:
A) Price of the underlying security.
B) Volatility of the underlying security.
C) The number of contracts a client is long or short.
D) Time to expiration
6. To create a credit horizontal, calendar spread, the options should have
I. Different strike prices
II. Same expirations
III. Same strike prices
IV. Different expirations
A) I and III.
B) I and IV.
C) II and III.
D) III and IV
7. A firm may assign option exercises using which of the following methods?
I. FIFO.
II. Random assignment.
III. LIFO.
A) I and II.
B) I only.
C) I, II and III.
D) II only.
8. With XYZ trading at $\$ 47.50$, your customer writes 1 XYZ January 50 put and simultaneously writes 1 XYZ January 45 call receiving $\$ 600$ in combined premiums. Your customer's market attitude is:
A) Neutral.
B) Speculative.
C) Bearish.
D) Bullish.
9. If an investor buys a Jan 30 XYZ call for 4 and sells a Jan 35 call for 2, to become profitable, the spread between the prices of the two options must:
A) Remain the same.
B) Narrow.
C) Fluctuate.
D) Widen
10. In a volatile market, which of the following option strategies carries the mostrisk?
A) Short straddle.
B) Credit spread.
C) Long straddle.
D) Debit spread
11. An investor with no other positions buys 1 CDE May 65 put at 3.50 . If the investor buys the stock at 63.50 and exercises the put, what is the investor's profit or loss?
A) $\$ 200$ profit.
B) $\$ 350$ loss.
C) $\$ 350$ profit.
D) $\$ 200$ loss
12. A customer should receive a current option disclosure document before or at the date of:
A) The first trade.
B) Account approval.
C) The first monthly statement.
D) Settlement.
13. Your customer informs you that news is expected on Datatech that she believes will have a big impact on the stock. Unfortunately she is unsure if the news is good for the company or will be damaging. As her RR, you inform her that she could take advantage of this if she
A) Buys a call
B) Sells a put
C) Buys a spread
D) Buys a straddle
14. Your customer is short 100 sh of xyz at $\$ 65$ and simultaneously writes 1 xyz June 60 put for 2. The stock declines to $\$ 55$ and the put is exercised. Before taxes, what is your customer's gain or loss?
A) $\$ 1200$ gain
B) $\$ 700$ gain
C) $\$ 200$ loss
D) unlimited loss
15. A customer establishes the following positions: Buy 100 ABC at 28

Buy 1 ABC Dec 25 put at 2 . At what price must ABC trade for the customer to breakeven?
A) $\$ 30$
B) $\$ 27$
C) $\$ 26$
D) $\$ 23$
16. An investor is long 1 OEX December 420 call for $\$ 1200$. Whenthe current market is at 445 the investor exercises is option. He would receive:
A) The difference between the strike price and the market value times a multiplier of 100
B) 100sh of stock in the underlying security for a cost of $\$ 420$
C) The net difference between $\$ 1200$ and $\$ 445$
D) The difference between the strike price and the market value times a multiplier of 100 less the premium
17. An investor with no other positions buys 1 DWQ Jun 60 call at 3.50 . If the investor exercises the call when the stock is trading at 68 and immediately sells the stock in the market, what is the investor's profit or loss?
A) $\$ 350$ loss.
B) $\$ 450$ profit.
C) $\$ 450$ loss.
D) $\$ 350$ profit
18. Your customer has noticed that her portfolio hasn't been performing well lately and would like to know how to increase the return in the short-term. As her RR, you may recommend she:
A) Buy long puts
B) Buy long calls
C) Write covered call
D) Write uncovered puts
19. As a RR, you would recommend a short straddle if you believed the market will:
A) Rise
B) Remain the same
C) Fall
D) Be volatile
20. A customer goes long an MMM Jan 40 put at 5 and writes an MMM Jan 50 put at 13. The customer will break even or profit when the market price is at all of the following EXCEPT:
A) $\$ 35 /$ share
B) $\$ 40 /$ share
C) $\$ 42 /$ share
D) $\$ 45 /$ share
21. A UK company exports sweaters to the U.S. and will be paid in U.S. dollars on delivery. To hedge foreign-exchange risk using listed currency options, the UK Company should:
A) Buy British pound calls
B) Sell British pound puts
C) Buy British pound puts
D) Sell British pound calls
22. A person who buys a put will lose most or all of his investment if, just before expiration, the price of the underlying stock is:
I. the same as the exercise price.
II. greater than the exercise price.
III. less than the exercise price.
A) II and III
B) I and III.
C) III only.
D) I and II
23. Your customer is long 100 sh of $X Y Z$ at $\$ 50$. She fears a near term correction but overall she remains bullish. As her RR, you tell her if she would like to profit from this, she could:
A) Buy a 50 Put
B) Buy a 50 Call
C) Sell a 55 Call
D) Sell a 55 Put
24. On January 1, an investor buys 1 FLB Apr 50 call at 4 and 1 FLB Apr 50 put at 2.50 . If both options expire unexercised, what are the tax consequences for the investor?
A) $\quad \$ 150$ net capital loss.
B) $\quad \$ 400$ gain on the call, $\$ 250$ gain on the put.
C) $\$ 400$ loss on the call, $\$ 250$ loss on the put.
D) $\$ 150$ net capital gain.
25. Your customer who is long a stock and wishes to limit the potential downside risk should:
A) Buy a put.
B) Enter a sell limit order.
C) Enter a buy stop order.
D) Buy a call
26. Data Tech imports raw material from their Tokyo supplier with payment in Yen expected in 30 days. However, Data Tech fears the value of the dollar will decline in the near future. To hedge their purchase they may:
A) Buy Yen Calls
B) Buy Yen Puts
C) Buy U.S. Dollar Calls
D) Buy U.S. Dollar Puts
27. Your customer writes a combination. She is:
A) Bullish
B) Bearish
C) Neutral
D) Consolidated
28. Your customer Bob buys 1 ABC Nov. 60 call for $\$ 300$ when the market price of $A B C$ is $\$ 56 /$ sh. At expiration, with $A B C$ now trading at $\$ 67 /$ sh, he closes his position. For tax purposes, what is his gainor loss?
A) $\$ 300$ capital gain
B) $\$ 400$ capital gain
C) $\$ 700$ capital gain
D) $\quad \$ 300$ capital loss
29. An investor is long $1 \times Y Z$ Jan. 40 call and writes $1 X Y Z$ Jan. 50 call. Which two statements are true?

I It is Bullish
II It is Bearish
III It is a Debit
IV It is a Credit
A) I and III
B) I and IV
C) II and III
D) II and IV
30. An investor is long 1 ABC May 40 call for $\$ 600$ and is short 1 ABC May 50 call for $\$ 200$. To maximize his profit, he would:

I Want the spread to widen
II Want the spread to narrow
III Exercise both options
IV Allow both options to expire
A) I and III
B) I and IV
C) II and III
D) li and IV
31. Your customer is long $1 X Y Z$ Nov. 30 call when she learns that $X Y Z$ has announced a 3 for 2 split and wants to know how this will affect her option. As her RR, you tell her on the ex-dividend date she will own:
A) 1 XYZ 20 call (100 shares)
B) 2 XYZ 20 calls ( 100 shares)
C) 1 XYZ 20 call ( 150 shares)
D) 2 XYZ 20 calls ( 150 shares)
32. The VIX mimics the volatility of stocks that underlie options. Known as the "fear index", the VIX tracks which index?
A) $\quad \mathrm{S} \& \mathrm{P} 100$
B) Wilshire 5000
C) Russell 2000
D) $\quad \mathrm{S} \& \mathrm{P} 500$
33. An investor is long 100 shares of $X Y Z$ at $\$ 50$ and long 1 XYZ Jan 50 Put. This is known as
A) a married put
B) a straddle
C) a spread
D) a combination
34. Which of the following represents a spread?
A) Long April 50 call, long April 50 put
B) Long April 50 call, short May 50 call
C) Long May 50 put, long May 60 put
D) Long May 50 call, long April 60 call
35. An investor who is fairly conservative is seeking income and doesn't think the market will rise. Asa R.R., which would you recommend?
A) A credit call spread
B) A long straddle
C) Buy a put
D) covered calls
36. An investor is long 1 XYZ April 40 call and short 1 XYZ July 40 call. Which of the following best describes his position?

I Bullish
II Bearish
III Calendar spread
IV Vertical spread
A. I and III
B. I and IV
C. II and III
D. II and IV
37. Investor writes a call in July but it expires in January of next year. When is it taxed?
A) When the investor receives the money
B) When the option expires
C) When the option is sold
D) On the settlement date
38. An investor wished to generate maximum income from their portfolio. She is currently long 300sh of MNO ant $\$ 50 /$ share and would like to place an order to sell 5 MNO 55 calls at 3 . As the R.R., you would inform her that
A) This position has an unlimited potential risk
B) An excellent way to generate income from a stock portfolio
C) It is a bullish strategy
D) It would increase her cost basis on the stock
39. Your client bought 1 ABC 70 July put. What would you recommend to close her position?
A) Long 1 ABC 70 July Call
B) Short 1 ABC 70 July call
C) Short 1 ABC 70 July put
D) Long 1 ABC 70 July put
40. You have several clients that currently own option positions in DXY, Inc. The company has declared a $\$ 0.50$ cash dividend to be paid in 3 months. What effect will this have on your customer's option positions?
A) It will only effect the number of contracts each customer owns
B) It will only effect the strike price of the option
C) It will effect both the number of contracts and the strike price
D) It will have no effect on the option contracts
41. In November, an investor wants to sell his shares now, but doesn't want to incur the tax consequences until next year. If he is only willing to hold the shares for another six months, writing which calls would be most profitable and achieve his objectives.
A) American style April call, out-the-money strike price
B) American style January call, at-the-money strike price
C) European style April call, out-the-money strike price
D) European style January call, at-the-money strike price
42. Which VIX Index option would be bearish in the market?
A) Long VIX call
B) Short VIX put
C) Debit VIX call spread
D) Debit VIX put spread

## ANSWER KEY

1. A. Add the premium to the cost of the stock to determine the cost basis for tax purposes.
2. D. You had to have bought to own, therefore you must sell to close.
3. A. Be careful! It usually doesn't work like this in the real world. 15 days from account approval.
4. D. Look at your options chart. Don't you wish the real test was this easy!!
5. C. How many contracts an investor owns, has nothing to do with the value of the premium.
6. D. To create a calendar (or time) spread, the options must contain options of differing time value.
7. A. A B/D, unlike the O.C.C., has a choice between First in, first out or a random fair method.
8. A. A short straddle is neutral.
9. D. Debit spreads must widen.
10. A. Be careful! Our objective is NOT volatility. That is our RISK!
11. D. Do a T-chart. Out $\$ 350$. Out $\$ 6350$. In $\$ 6500$ when they exercise their right to sell at the strike price.
12. B. The Options Disclosure Document is required to be delivered to the customer at or prior to the R.O.P. approval
13. D. When you anticipate volatility but are unsure of the direction - classic definition of a long straddle!
14. B. Do a T-chart. $\$ 65$ in. $\$ 2 \mathrm{in}$. $\$ 60$ is out when the put is exercised and you are obligated to buy at the strike price ( $\$ 55$ is a distractor).
15. A. Easy! For a hedge, do a T-chart to determine breakeven. $\$ 28$ out, $\$ 2$ out. Net $\$ 30$.
16. A. When exercising an index option, the investor receives cash equal to the intrinsic value. Intrinsic value, of course, is simply when the market price is greater than the strike price and never involves the premium paid
17. B, Do a T-chart! Out $\$ 350$ and $\$ 6000$ from buying the initial option and then exercising and buying the stock at the strike price. In $\$ 6800$ when you sell the stock at the current market price. $\$ 450$ net profit.
18. C. If you're long stock and want to enhance the profit, you would sell or write calls.
19. B, We are anticipating a flat or neutral market when we sell a straddle.
20. A, This is a credit put spread. Since the short put is more dominant (higher strike price) it is bullish. The breakpoint for this spread is the net premium subtracted from the higher strike price (PSH) which would be 42 . So any price of 42 or above would be profitable.
21. A. A foreign exporter (U.S. importer) buys calls on the risk the U.S. dollar declines (foreign currency increases) in value.
22. D. Buying puts are bearish and therefore will lose money if the stock is at, or, out of the money.
23. C. Look at your options chart. If you're long stock and want to profit, sell a call. Bullish is a distractor, the option matches the risk direction.
24. C. The maximum loss whenever you buy options are the premiums.
25. A. Look at your options chart. Whenever you're long stock and want to protect, buy a put.
26. A. Remember, there are no options on U.S. currency. Only on foreign currency. Our risk is that the yen will cost more.
27. C. Selling straddles/combinations we are neutral (stability).
28. B. There are many ways to look at this. The easiest is buy the call for $\$ 300$ and trade it for its intrinsic value of $\$ 700$ for a net profit of $\$ 400$.
29. A. For spreads without premiums, the lower strike price has a higher premium and thus, more dominant. The long call being more dominant and is bullish. More money is going out, thus a debit.
30. A. "DEW". Debit spreads, exercise, widen.
31. C. For an uneven split, the number of contracts do not change. Only the number of shares in the contract (Ignore the strike price). There is only one answer that satisfies this.
32. D. The "VIX" attempts to mimic the volatility of the S\&P 500 index.
33. A. A long stock position with a long put is known as a married put.
34. B. A spread is buying and selling the same type of option. This is a horizontal spread since the strike prices are the same and the expiration is different.
35. D. Writing covered calls is a low risk strategy to create income when the market is stable or slightly bearish.
36. C. Since the strike prices are the same but the expirations are different, this is a calendar (horizontal) spread. Since the short call has the longer expiration, it would have more time value and therefore a higher premium and thus make the short call more dominant. And short calls are bearish.
37. B. Capital gain or loss is realized when the option expires.
38. A. Known as a "ratio write", it contains 2 calls that are uncovered and, therefore, has an unlimited risk.
39. C. To close an option position, you would use the same option, only opposite transaction.
40. D. Option contracts are only adjusted for stock dividends
41. C. European options cannot be exercised before expiration thus avoiding the possibility of being exercised and incurring a capital gain on the stock.
42. D. In a debit put spread, the long put is more dominant (higher premium) and long puts are bearish.

[^0]:    I the cost basis is $\$ 36 /$ sh.
    II the cost basis is $\$ 33 /$ sh.
    II the sale proceeds are $\$ 40 /$ sh.
    IV the sale proceeds are $\$ 43 /$ sh.

