

Fill in the blanks (2 points each)

1. _____ have no use for the physical commodity and are attempting to profit from price movements.
2. _____ is the difference between futures prices.
3. Hedging is the holding of _____ and _____ positions in the cash and futures markets.
4. A call option contains the right to _____ a futures contract.
5. If I take a short position in the futures market, then I have _____ a futures contract.
6. On Apr. 29, 2013, the May 2013 corn futures price was \$6.84 per bushel. If the corn cash price was \$6.91 per bushel, then the basis is \$_____.
7. On Apr. 29, 2013, the July 2013 corn futures price was \$6.60 per bushel. If a put option with a \$6.50 strike price has a premium of 24 cents, what is the time value of the option?

8. On Apr. 29, 2013, the July 2013 corn futures price was \$6.60 per bushel. If a call option with a \$6.50 strike price has a premium of 33 cents, what is the intrinsic value of the option?

True or False (2 points each)

9. T F A deferred price contract locks both the futures price and the basis.
10. T F A hedge-to-arrive contract protects you from basis risk.
11. T F Basis = Cash price + Futures price.
12. T F Crop insurance is subsidized by the federal government.
13. T F Put and call options are opposite positions that can offset each other.
14. T F The top reason crops fail is drought.
15. T F The last 2 soybean crops are the 2 largest soybean crops the U.S. has ever had.
16. T F A short hedge protects against rising prices.

Short Answer (4 points each)

17. What is the strike price and settlement (or closing) premium for the nearest in-the money put option on the July 2013 soybean futures on May 3, 2013 (State it in \$/bushel, Check the markets after 4pm).

Strike Price \$_____

Premium \$_____

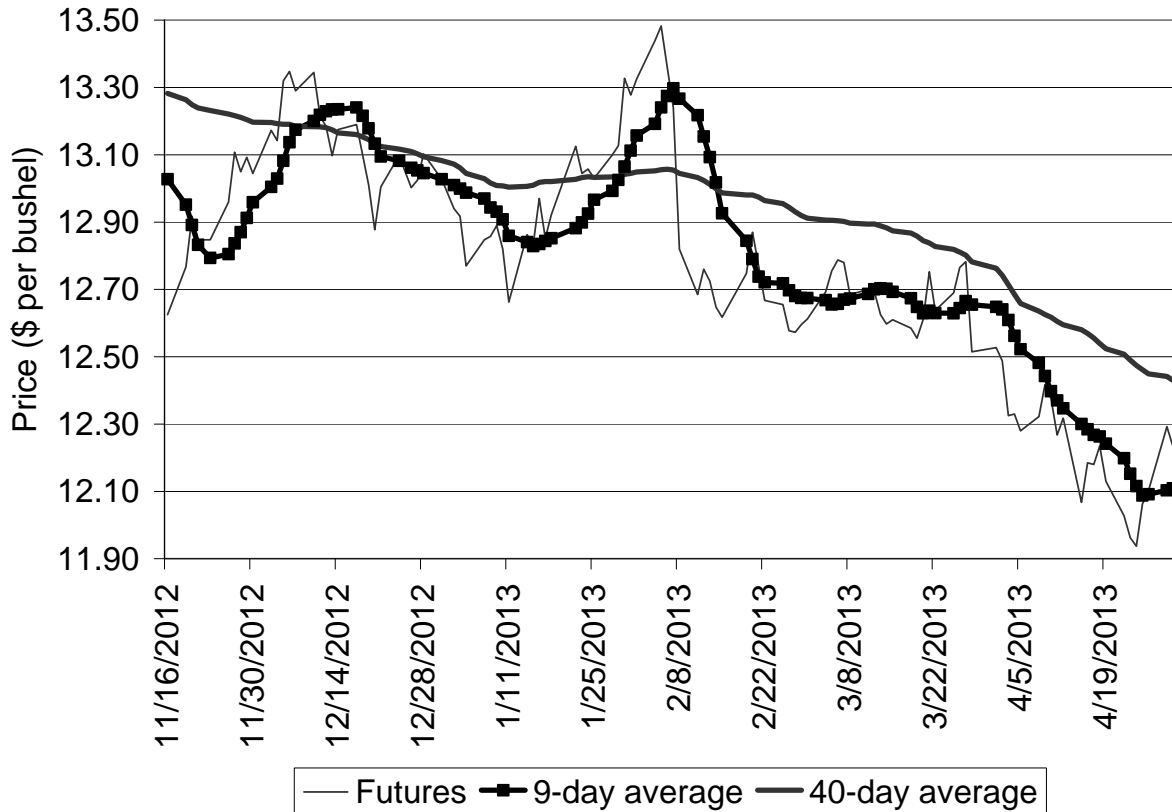
18. Why might you use a basis contract?

19. Name 2 of the 5 factors that affect the value of an option premium.

20. I put on a short hedge using Nov. 2013 soybean futures on Apr. 29. The futures price was \$12.29 per bushel. If my expected basis is -\$0.75 per bushel and the broker charges me a 2 cent per bushel commission, what is my expected price under the short hedge?

If in August I want to offset the short hedge, how will I do that?

21. Below are the futures prices, 9-day, and 40-day moving averages for Nov. 2013 soybeans.



In looking at the 9-day versus the 40-day average:
How many buy signals have we had since last November?

What was the last signal (buy or sell) we received?

22. For 2013, you have an expected corn yield of 180 bushels per acre on your farm, based on your previous corn yields. The spring time insurance price for corn is \$5.65 per bushel.

a) If you got 75 bushels per acre in 2013 and the harvest time price was \$7.00 per bushel, what would be the insurance payment if you bought 80% yield insurance?

b) If you got 75 bushels per acre in 2013 and the harvest time price was \$7.00 per bushel, what would be the insurance payment if you bought 80% revenue insurance (with the harvest price option)?

Matching (2 points each)

Answer questions matching the following action to the appropriate statement. Terms may be used more than once.

- | | | |
|-----------------------|----------------------|----------------------------|
| a) Sell a call option | c) Sell a put option | e) Sell a futures contract |
| b) Buy a call option | d) Buy a put option | f) Buy a futures contract |

23. _____ Lose on price decreases, but gain on price increases.
24. _____ Limited risk if futures prices fall, but unlimited profit potential if they rise.
25. _____ Receive a premium, but maybe obligated to sell a futures contract at the strike price.
26. _____ Protects against lower prices but doesn't prevent gains from higher prices.
27. _____ Have the right, but not the obligation, to buy a futures contract at the strike price.
28. _____ Have the right, but not the obligation, to sell a futures contract at the strike price.
29. _____ Receive payment into a margin account if futures price decreases.
30. _____ Known profit for futures prices below the strike price, but unlimited losses otherwise.

Long Answer (8 points each)

31. How much are the total storage and opportunity costs for corn that I have in storage given the following details?
- 20,000 bushels of corn stored for 6 months
 - 3 cents per bushel for each month
 - Harvest price of \$7 and a short-term interest rate of 3%

32. Given the data below, compute a 14-day Relative Strength Index for Dec. 2013 corn.

Date	Futures Price
4/9/2013	5.40
4/10/2013	5.43
4/11/2013	5.44
4/12/2013	5.50
4/15/2013	5.32
4/16/2013	5.41
4/17/2013	5.47
4/18/2013	5.41
4/19/2013	5.47
4/22/2013	5.33
4/23/2013	5.23
4/24/2013	5.28
4/25/2013	5.31
4/26/2013	5.24
4/29/2013	5.60

Margins (12 points)

33. I am a hedger that went short on December 2013 corn on Apr. 22, 2013 at \$5.33 per bushel. The initial margin requirement is \$2,700. The maintenance margin is \$2,000. Fill out my margin account for one futures contract.

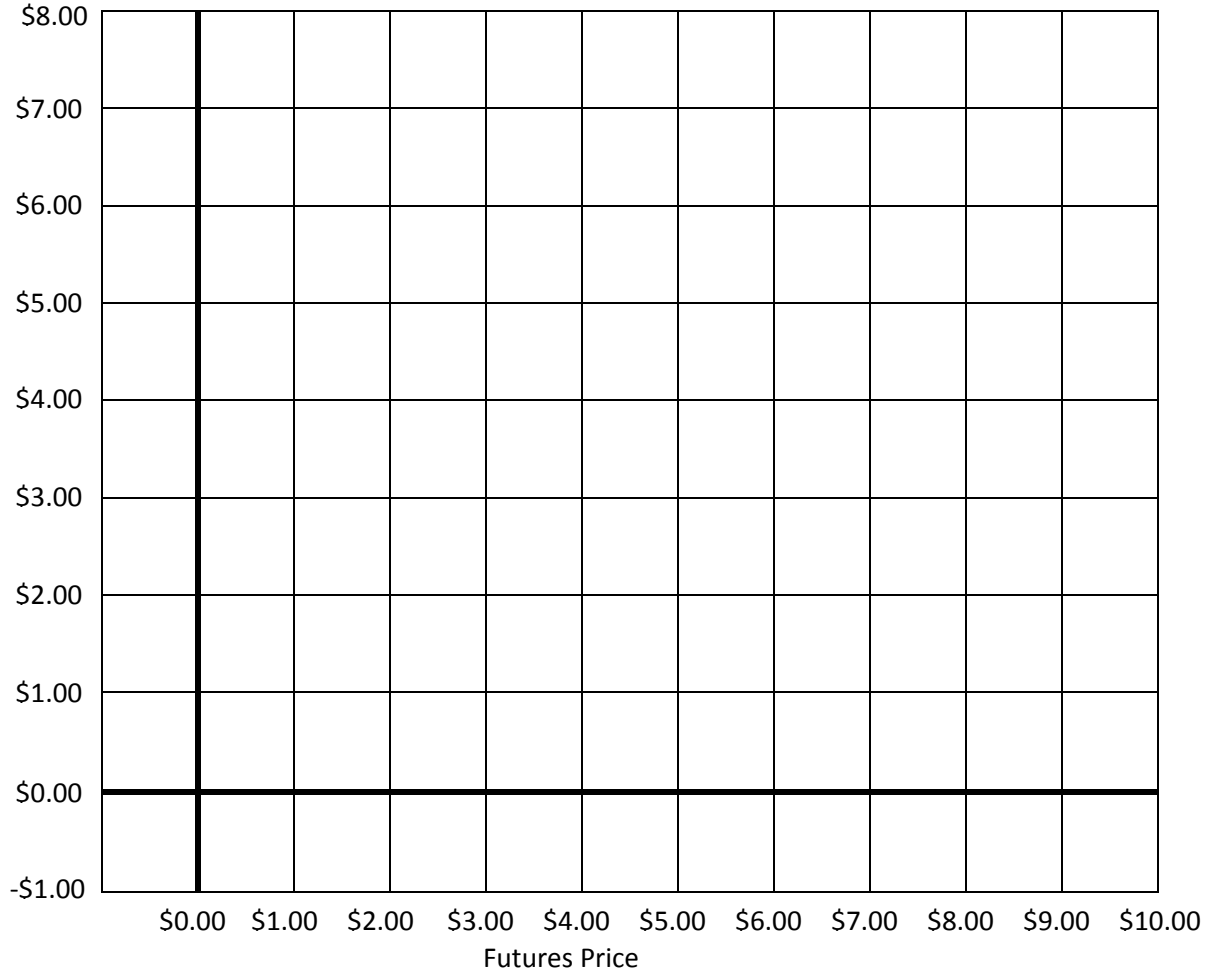
Date	Futures Price	Gain/Loss	Margin Call	Account Balance
4/22/2013	\$5.33	X	X	\$2,700.00
4/23/2013	\$5.2275			
4/24/2013	\$5.28			
4/25/2013	\$5.3125			
4/26/2013	\$5.24			

Math and Graph (16 points, please show your work)

34. A corn producer is looking to put a floor price on her upcoming production. She buys a \$5.50 put option on Dec. 2013 corn. At the time, the Dec. 2013 corn futures price was \$5.60. The premium for the option is \$0.43 and the commission is 1 cent per bushel. She expects a harvest time basis of -\$0.25 per bushel.

Please graph the relevant cash price, option return, and net price lines.

Return/Net Price



What is her floor price?

If the Dec. 2013 corn futures rises to \$7, what is her expected net price? Which would have given her the higher expected net price, the put option or a futures hedge?

If the Dec. 2013 corn futures falls to \$3.50, what is her expected net price? Which would have given her the higher expected net price, the put option or a futures hedge?