Name: $\qquad$
Econ 337 Agricultural Marketing, Spring 2018

## Homework Assignment 2; Due February 8, 2018 (Beginning of Class)

1) A summer backgrounder operator decided to hedge 750 pound feeder steers to be sold in October. $\mathrm{He} /$ she sold October futures at $\$ 142.225$ per cwt and expected basis to be $\$ 7.960$ per cwt for the quality of steers they will be selling. Assume brokerage commission is $\$ 60 /$ round turn or $\$ 0.150$ per cwt.
a) What price does the backgrounder think they have locked in for these steers come October?

Parts b and c are stand alone questions using this same initial position from question 1.
b) In October, the backgrounder sells the steers for $\$ 164.975$ per cwt and closes his/her futures contract at a price of $\$ 153.090$ per cwt.
-what is the gain/loss on the futures position?
-what did basis turn out to be?
-what is the net selling price on the calves?
-Is the expected selling price equal to the net selling price? If yes, why? If not, why not?
c) Forget part b! In October, the backgrounder sells the steers for $\$ 156.765$ per cwt and closes his/her futures contract at a price of $\$ 149.675$ per cwt.
-what is the gain / loss on the futures position?
-what did basis turn out to be?
-what is the net price on the calves?
-Is the expected selling price equal to the net selling price? If yes, why? If not, why not?
2) Go back to the scenario set up in problem \#1. A summer stocker operator decided to protect cattle to be sold in October. October futures are trading at $\$ 142.225$ per cwt and basis is expected to be $\$ 7.960$ per cwt for the quality of steers they will be selling. However, instead of a straight hedge, the backgrounder decided to purchase a put option with a $\$ 135$ strike price for $\$ 4.900$ per cwt. Assume brokerage commission is $\$ 30$ ( $\$ 0.075 / \mathrm{cwt}$ ) to buy an option contract and $\$ 30(\$ 0.075 / \mathrm{cwt})$ to sell offset a futures position.
a) What price floor does the backgrounder think they have set?

Parts b and c are stand alone questions using this same initial position from question 2.
b) In October, the backgrounder sells the steers for $\$ 155.765$ per cwt. The futures price has risen to $\$ 147.805$ per cwt. Does the backgrounder want to excise his/her option?
-What will be the net price for the calves?
c) In October, the backgrounder sells the steers for $\$ 137.960$ per cwt. The futures price has fallen to $\$ 130.000$ per cwt. Does the backgrounder want to excise his/her option?
-What will be the net price for the calves?
3. This question is designed to give you some practice using spreadsheets and estimating basis for feeder cattle. Use the "CombinedAuctionIA-Feeder Cattle Cash Prices" and "Feeder Futures Prices" spreadsheets to estimate basis for each month and each year for feeder cattle. Calculate the 5 -year average basis by month. Using a spreadsheet will be much quicker than doing this by hand.

Write your basis estimates into the table below, or attached a print out of the table.


Notes:
1/ Basis is calculated as Cash - Futures. A negative sign means that futures are greater than cash.
$2 /$ Cash price is for large and medium frame steers.
Describe the seasonal basis pattern for Iowa 700-800 lb large and medium frame no. 1 steers. You can just describe the basic seasonal pattern and in which month basis is the highest and lowest. Also note if there is a month that seems like an outlier. Using the 5 -year average calculation to describe would be appropriate.

