Participant Number _**KEY**_____ State Abbreviation _____

Participant Name (please print) _____**KEY**_____

Important: Before you start this portion of the event, please write your participant number and state abbreviation on the blanks provided at the top of *each page.*

2009 NATIONAL FFA FARM BUSINESS MANAGEMENT CAREER DEVELOPMENT EVENT

Page Number	Part	Area	Possible Points	Score
3	I	Financial Statements	40	_____
7	II	Budgeting	42	_____
12	III	Projected Cash Flow	32	_____
16	IV	Marketing	38	_____
22	V	Income Tax Management	32	_____
25	VI	Investment Analysis	32	_____
28	VII	Risk Management	30	_____
31	VIII	Farm Business Organizations	23	_____
33	IX	Analysis of the Farm Business	31	_____
		TOTAL POSSIBLE POINTS	**300**	
		PARTICIPANT POINTS		_____

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Participant Number _**KEY**_____ State Abbreviation _____

PART I – FINANCIAL STATEMENTS

A. Before reviewing their financial statements, the Murphys want to review the definitions of several financial ratios. Match the terms on right with their correct definitions. Write the correct numbers in the blanks provided. (1 point each)
(NOTE: Each term may be used only once.)

__**7**__	Is used to express a return on farm assets per dollar of total income and defines profit as a percentage of total revenue.
__**8**__	Shows the percentage return on investment of the business.
__**3**__	Compares total dollars of debt to total dollars of assets.
__**4**__	Shows the relationship between owned and borrowed capital. A measure of solvency.
__**6**__	Shows the proportion of farm income that is used to pay operating expenses not including depreciation or interest.
__**5**__	Measures the relationship of the farm's net worth (owner equity) to the total farm assets.
__**1**__	Determines the ability of the business to meet short-term debt and other obligations from available cash. A measure of liquidity.
__**9**__	Represents the interest rate being earned in the farm business. This return is calculated by dividing the return to equity capital and management by average farm net worth.
__**2**__	Measures the relationship between current liabilities and total liabilities.
__**10**_	A measure of the amount of cash available to purchase inputs and inventory items after the sale of current farm assets and payment of all current farm liabilities.

1. Current Ratio
2. Debt Structure
3. Debt/Asset Ratio
4. Debt/Equity Ratio
5. Equity/Asset Ratio
6. Operating Expense Ratio
7. Operating Profit Margin Ratio
8. Return on Assets (ROA)
9. Return on Equity (ROE)
10. Working Capital

Participant Number _**KEY**_____ State Abbreviation _____

B. Several financial measures can be used to assess the financial performance of Murphy Farms. Indicate in the following table what ratio or measure is used to assess financial performance. (NOTE: Circle the letter of the correct response.) (1 point each)

L = Liquidity S = Solvency P = Profitability F = Financial Efficiency

Ratio or Measure	Used to assess			
Rate of Return on Equity (ROE)	L	S	**P**	F
Working Capital	**L**	S	P	F
Operating-Expense Ratio	L	S	P	**F**
Debt to Equity Ratio	L	**S**	P	F
Current Ratio	**L**	S	P	F
Rate of Return on Assets (ROA)	L	S	**P**	F
Debt to Asset Ratio	L	**S**	P	F
Interest-Expense Ratio	L	S	P	**F**
Net Farm Income from Operations	L	S	**P**	F

C. Refer to the Murphy Farms' financial statements and financial analysis (**pages R 4, R 5, and R 6 of the resource information**) to answer the following questions. (1 point each)

1. The working capital for Murphy Farms as of 12/31/2008 was: $_**54,749**___

2. The current ratio for Murphy Farms as of 12/31/2008 was: __**1.26**____:1
(NOTE: Round answer to two decimal places)

3. The increase in net worth for 2008 was: $_**23,407**___
$379,934 - $356,527 =

4. In what year did the largest change (total dollars) in net worth occur:
(NOTE: Circle the correct response)

2006 **2007** 2008
$85,434 **$119,034** **$23,407**

5. In what year did Murphy Farms have their lowest current ratio? __**2006**____
0.75 :1

6. The largest change in total farm liabilities occurred in which year? __**2006**____
2006= $308,651 2007= ($146,977) 2008= $75,364

7. On 12/31/2008 machinery and equipment made up what percent of total farm assets? (NOTE: Round answer to two decimal places) __**33.01**___%
$243,390/$737,356 = X * 100 =

8. As of 12/31/2008, what percent of total farm assets are the current assets? (NOTE: Round answer to two decimal places)
__**36.38**___%
$268,226/$737,356 = X * 100 =

9. In 2007, the debt-to-asset ratio on the balance sheet was 0.44:1. This means the equity-to-asset ratio was: __**0.56**___:1
(NOTE: Round answer to two decimal places)
1.00 - 0.44 =

Participant Number _**KEY**_____ State Abbreviation _____

10. Does the Murphy Farms business appear to be liquid for 2008?
(NOTE: Circle the correct response)

Yes No

11. Did Murphy Farms become more, less, or equally liquid between 2006 and 2008?
(NOTE: Circle the correct response)

More Less Remain Constant

12. Which of the liquidity measures actually give an indication of the total dollar amount of liquidity? (NOTE: Circle the correct response)

Current Ratio **Working Capital**

13. Does the Murphy Farms business appear to be solvent for 2008?
(NOTE: Circle the correct response)

Yes No

14. Did Murphy Farms become more, less, or equally solvent between 2006 and 2008?
(NOTE: Circle the correct response)

More Less Remain Constant

15. If Murphy Farms was free of debt, the Rate of Return on Equity (ROE) and the Rate of Return on Assets (ROA) would be: (NOTE: Circle the correct response)

ROA > ROE **ROA = ROE** ROA < ROE

16. Which of the financial ratios is normally referred to as the "leverage ratio"?
**Debt – to - Equity** ratio

17. Net worth is a measure of: (NOTE: Circle the correct response)

a. Liquidity
b. Solvency
c. Profitability
d. Financial Efficiency

18. Accrued interest on a balance sheet refers to: (NOTE: Circle the correct response)

a. Interest forgiven by the lender
b. Interest that is past due
c. Interest on short-term debt
d. Interest that has accumulated since the last loan payment

Participant Number _**KEY**_____ State Abbreviation _____

19. Net farm income from operations is: (NOTE: Circle the correct response)

    a. Difference between cash revenue and cash expenses
    b. The excess of receipts over the payments for all factors of production
    c. Return to unpaid family and operator labor, equity capital and management
    d. Return to unpaid family and operator labor, debt capital and management

20. Roy and Patrick have been using an opportunity cost for labor and management of $80,000. What would have been the ROE for Murphy Farms in 2008 if withdrawals for operator labor had been used instead of opportunity costs?
    (NOTE: Round to two decimal places)

    Revised 2008 ROE = ___**68.68**__%
    $354,906 - $102,000 = $252,906/$368,231 =

21. The use of opportunity costs in the calculation of ROE and ROA in 2008 would show which of the following for Murphy Farms? (NOTE: Circle the correct response)

    1. The use of opportunity costs for labor and management causes ROE and ROA to be less than if withdrawals for operator labor is used
    2. **The use of opportunity costs for labor and management causes ROE and ROA to be greater than if withdrawals for operator labor is used**

End of Part I – FINANCIAL STATEMENTS

Total Possible Points = 40 POINTS EARNED PART I = _____

Participant Number _**KEY**_____ State Abbreviation _____

PART II – BUDGETING

A. Answer the following questions by circling the correct response. (1 point each)

1. In budget analysis which of the following is NOT considered one of the four factors of production

   a. Capital
   b. Management
   c. Land
   d. Weather

2. Which of the following is considered one of the four factors of production?

   a. Fuel and oil
   b. Labor
   c. Repairs and maintenance
   d. Depreciation

3. The best format for a budget in our complex economy is:

   a. An informal oral plan
   b. A formal written plan
   c. An informal written plan
   d. A formal oral plan

4. A management tool that shows projected costs and returns associated with one production process, usually for one production period is:

   a. A whole farm budget
   b. A partial budget
   c. An enterprise budget
   d. A cash flow projection

5. A management tool that shows the physical and financial plan for the entire farm or ranch business for a specified period of time is:

   a. A whole farm budget
   b. A partial budget
   c. An enterprise budget
   d. A cash flow projection

6. A management tool that shows projected costs and net returns associated with some change in the farm business is:

   a. A whole farm budget
   b. A partial budget
   c. An enterprise budget
   d. A cash flow projection

7. Which of the following is considered the first step in developing a budget?

   a. Selecting the market prices for inputs and outputs
   b. Selecting the physical data for inputs and outputs
   c. Appraising the business and family goals and objectives
   d. Calculating the expected costs and returns, including variable and fixed costs

8. Which of the following is considered a fixed cost?

   a. Fertilizer
   b. Chemicals
   c. Depreciation
   d. Seasonal hired labor

B. Additional costs, additional returns, reduced costs and reduced returns are components of a typical seven-part partial budget. Complete the partial budget format by writing in the missing components in the blanks provided. (1 point each)

Column One	Column Two
Negative Effects	**Positive Effects**
1. **Additional Costs**	4. **Additional Returns**
2. **Reduced Returns**	5. **Reduced Costs**
3. **Total AC + RR**	6. **Total AR + RC**
7. **Net Change in Income (line 6 – line 3)**	

C. Review the information in the Slaughter Steer enterprise budget (**page R 14 of the resource information**). Answer the following questions related to projections for the enterprise budget. (1 point each)

1. What is the projected selling weight (in pounds) of the finished steer (after accounting for death loss)?
   _1,337 lbs.

2. What is the projected cost of hired labor? $__**8.00**__ /head

3. What are the projected returns above total operating costs? $_**58.14**__ /head

4. What is the projected average daily gain (ADG)? __**3.8**__ lbs./day

5. Calculate the break-even price and weight of finished steer to cover all specified costs. (NOTE: Round answers to two decimal places.)

   a Break-even price to cover all specified costs = $__**81.61**___ /cwt.
   P* 13.37 – ($1,074.54 + $16.59) =
   b Break-even weight to cover all specified costs = ___**12.87**__ cwt.
   $84.75 * Y – ($1,074.54 + $16.59) =

6. Determine the total costs per pound of projected gain. Assume a projected gain of 800 lbs. Assume no inputs or outputs will change. (NOTE: Round answers to two decimals.)

   a. Total costs per pound of projected gain = $__**1.36**____ / lb. of gain
      ($1,074.54 + $16.59)/800 =
   b. Total costs (minus purchase price of feeder steer) per pound of projected gain =
      $__**0.54**_____ / lb. of gain
      ($1074.54 - $660 + $16.59)/800 =
   c. Assuming the Murphys purchased 550 lb. feeder steers for $100.00 per cwt., what would be the total costs per pound of projected gain =
      $__**1.23**____ / lb. of gain
      ($414.54 + 550 + 16.59)/800 =

7. Assuming an average daily gain (ADG) of 3.8 lbs, how many days would the steer be in the feedlot. NOTE: Assume a purchase weight of 550 lbs. and a sell weight of 1,350 lbs. (NOTE: Round your answer to the nearest whole number.)

   Days on feed = ___**211**____ days
   800/3.8 =

D. A neighboring farmer has offered to rent the Murphys 150 acres of cropland for $125.00 per acre. Roy knows the farm has historically produced above average yields for the area. Roy and Patrick developed the soybean enterprise budget (**page R 8 of the resource information**) at the beginning of the year to be used with the projected cash flow for Murphy Farms. Roy wants to modify the enterprise budget to match his expectations for the farm being offered. Using the changes provided, make the adjustments to the soybean enterprise budget, and answer the following questions. Assume all other inputs and outputs will not change.
(NOTE: Round all answers to two decimals.) (1 point each)

Changes for the soybean (cash rent) enterprise budget:

Seed (price)	$ 0.55 /lb.	Interest on Operating Capital	$ 10.00 /ac.
Land Rent	$125.00 /ac.	Interest on Fixed Cost	$ 4.32 /ac.
Fuel and Oil	$ 17.00 /ac.	Soybean Yield	60 bushels /ac.

1. What are the total operating costs per acre? $__**277.61**__
   $215.82 - $114.96 + $176.75 =
2. What are the total fixed costs per acre? $___**30.83**__
   $29.83 - $3.32 + $4.32 =
3. What are the total receipts per acre? $__**494.15**__
   60 * $8.00 = $480.00 + $14.15 =
4. What are the returns above total operating costs per acre? $__**216.54**__
   $494.15 - $277.61 =
5. What are the returns above all specified costs per acre? $__**185.71**__
   $494.15 - ($277.61 + $30.83) =
6. What is the break-even price per bushel to cover all specified costs? $____**4.90**__ per bu.
   P*60 +$14.15 – ($277.61 + $30.83) = 0
7. Should the Murphys rent the farm being offered? (NOTE: Circle the correct response.)

   Yes No

E. Roy and Patrick discontinued their dairy beef enterprise when the cost of baby bull calves went to $250 per head. When they were purchasing the baby bull calves for $100 per head, they made very good returns. A local dairy has contacted them with a proposal to contract all their baby bull calves for $125 per head.

The Murphys have limited available operator labor due to the increase in their crop enterprises acres. If they were to renew their dairy beef enterprise they would need to downsize their slaughter steer enterprise (**refer to slaughter steer enterprise budget on page R 14 and dairy beef enterprise budget on page R 15 of the resource information**).

Using the following information and the partial budget form, determine if Murphy Farms should renew the dairy beef enterprise.

Dairy beef enterprise (per head):

- Operating costs (with $125 purchase price for baby bull calves) = $894.90
- Production = 1,274 lbs. (average finish steer weight; accounting for 2% death loss) selling for $75.00 per cwt. = $955.50

Slaughter steer enterprise (per head):

- Operating costs = $1,074.54
- Production = 1,337 lbs. (average finish steer weight; accounting for 1% death loss) selling for $84.75 per cwt. = $1,132.68

Complete the partial budget form. (1 point each)

Situation: To renew dairy beef enterprise and decrease slaughter steer enterprise	
Additional Costs: **Dairy Beef Operating Costs = $894.90** Subtotals = **$894.90**	Additional Returns: **Dairy Beef Finish Steer 1,274 lbs. @ $75.00 = $955.50** Subtotals = **$955.50**
Reduced Returns: **Slaughter Steer Finish Steer 1,337 lbs. @ $84.75 = $1,132.68** Subtotals = **$1,132.68**	Reduced Costs: **Slaughter Steer Operating Costs = $1,074.54** Subtotals = **$1074.54**
Total AC + RR = **$2,027.58**	Total AR + RC = **$2,030.04**
Net Change in Income = **$ 2.46**	

Participant Number _**KEY**_____ State Abbreviation _____

F. After completing the partial budget, Roy and Patrick realized they had left out a very important factor. Historically it has taken 211 days to finish their beef steers from a 550 lbs. feeder steer to 1,350 lbs. It has taken 520 days to finish a dairy beef steer from baby bull calf to market weight. Therefore, they can feed out 2.4 beef steers during the same time it takes to feed out one dairy beef steer. The Murphys used a partial budget to analyze whether they should renew the dairy beef enterprise and decrease the slaughter steer enterprise. They calculated that the total additional costs plus reduced returns = $3,613.33 and the total additional returns and reduced costs = $3,534.40. Assuming all inputs and outputs remain the same, answer the following questions. (NOTE: Round answers to two decimal places.) (1 point each)

1. What would be the net change in income? $__**(78.93)**__ per head
   (AR + RC = $3534.40) – (AC + RR = $3613.33) =

2. What is your recommendation with this information?
   (NOTE: Circle the correct response).

   Renew the dairy beef enterprise **Continue with the slaughter steer enterprise**

3. Using the latest information, at what price for baby bull calves would the returns above all specified costs be the same for both enterprises.

   Break-even price for baby bull calves = $__**46.07**___ per head
   $125.00 - $78.93 =

End of Part II – BUDGETING

Total Possible Points = 42 POINTS EARNED PART II = _____

Participant Number _**KEY**_____ State Abbreviation _____

PART III – PROJECTED CASH FLOW

A. Answer the following questions by writing the correct term in the blank provided. (1 point each)

1. A cash flow ___**summary**_____ is the actual result of money transactions during the year.

2. The cash flow ___**projection**_____ deals with the future plans of all of your money transactions for a specific time.

B. Following is a list of items related to the Murphy Farms operation. Roy and Patrick are not sure if they should be included in the projected cash flow for 2009. Indicate with a (+) for those items that should be included and a (O) for those items that should not be included in a projected cash flow. Write your answers on the blanks provided.

1. Value of raised feed for livestock __**O**__
2. Principal and interest payment of short-term debt __**+**__
3. Cost of bred heifers purchased for resale __**+**__
4. Value of uncle's exchange of labor for custom work __**O**__
5. Payment of cash rent for cropland __**+**__
6. Cash to be paid in 2009 for purchase of farm machinery __**+**__
7. Value of depreciation of farm machinery and equipment __**O**__
8. Feed purchased in 2008, but paid for in 2009 __**+**__
9. Ending inventory value of crops on hand __**O**__
10. Beginning cash balance __**+**__

Participant Number _**KEY**_____ State Abbreviation _____

C. Answer the following questions regarding the Murphy Farms' 2009 Projected Cash Flow (**pages R 16 and R 17 of the resource information**.) (1 point each)

1. What is the largest amount the Murphy Farms will have to borrow in any one month during 2009? $__**138,629**__
2. What are the projected total farm receipts? $_**1,124,059**_
3. What are the projected total farm expenses? $___**820,463**_
4. What is the projected ending operating loan balance on December 31, 2009? $___**0**_____
5. In what month does Murphy Farms project the greatest cash inflow? _**November**_
6. What was the beginning operating loan amount? $__**144,271**___
7. How much does Murphy Farms plan to spend on cash rent in 2009? $__**153,600**__
8. What is the largest projected operating expense item? _**Fertilizer**___
9. What is ending cash balance on December 31, 2009? $__**16,380**___
10. What minimum monthly bank balance does Murphy Farms plan to maintain? $___**1,500**___
11. How much does Murphy Farms project to borrow for their operating loan during 2009? $_**349,619**___
12. What is the total of the projected interest payments for 2009? $__**38,263**___

$13,818 + $24,445 =

D. The cash flow summary and the cash flow projection are management tools that can be used to examine repayment capacity or the ability of the farm business to repay term (both farm and non-farm) debts on time. Since cash flow plans may include non-farm income and expenses, they may not be a measure of business performance alone. Two measures provide additional information on repayment capacity from the cash flow. They are the term-debt coverage ratio and capital replacement and term debt repayment margin.

Participant Number _**KEY**_____ State Abbreviation _____

Answer the following questions about repayment capacity.
(NOTE: Circle the correct response.) (1 point each)

1. Term debt coverage ratio indicates whether a farm business produces enough cash to cover the current portion of the term debt (farm and non-farm). A projected ratio of less than one (1) indicates that a business may need to:

   a. Increase open accounts
   b. Borrow additional funds
   c. Sell assets to make scheduled payments to the bank
   d. All of the above

2. If the Murphy Farms' term-debt coverage ratio was 2.09:1, what will this ratio show the Murphys about their ability to cover all current (farm and non-farm) term debt payments?

   a. The ratio indicates the farm business has $2.09 for each $1 of total revenue
   b. The ratio indicates the farm business has $2.09 for each $1 of debt payment
   c. The ratio indicates the farm business does not have enough cash to cover debt payments
   d. The ratio indicates the farm business does not have enough cash to cover family living

3. Capital-replacement and term-debt replacement margin is:

   a. A financial statement with a list of assets, liabilities, owner equity and their relationship to each other at a particular time, usually at the end of an accounting period
   b. **Amount of cash remaining after all expenses, family living, income taxes, and scheduled debt payments have been made.**
   c. Amount of debt remaining after all expenses, family living, income taxes, and debt payments have been made
   d. Shows the ability to pay interest, but not principal

4. A positive capital-replacement and term-debt replacement margin indicates that the term debt coverage ratio is:

   a. Equal to one
   b. Less than one
   c. **Greater than one**
   d. Equals capital-replacement and term-debt replacement margin

E. One of Roy and Patrick's lenders explains that there are three cash flow sensitivity percentages that relate to debt and its effect on Murphy Farms' ability to repay loans. These cash flow sensitivity percentages are:

- Cash generated to pay operating loans as a percentage of total cash inflows, which is calculated by dividing principal payments on the operating loan by total cash inflows times 100.

- Cash generated to pay operating loans as a percentage of total operating expenses, which is calculated by dividing principal payments on the operating loan by total operating expenses times 100.

- Interest paid as a percentage of cash farm operating receipts, which is calculated as total interest paid divided by total operating receipts times 100.

1. Using the cash flow projection for Murphy Farms (**pages R 16 and R 17 of the resource information**) calculate the three cash flow sensitivity percentages.
(NOTE: Round answers to two decimal places)

   a. Cash generated to pay operating loans as a percentage of total cash inflows:

   $538,890/$1,124,059 = X * 100 = __**47.94**___%

   b. Cash generated to pay operating loans as a percentage of total operating expenses:

   $538,890/$633,598 = X * 100 = __**85.05**___%

   c. Interest paid as a percentage of cash farm operating receipts:

   ($13,818+$24,445)/$875,830 = X * 100 = ___**4.37**___%

2. Select from the list the true statement about cash flow sensitivity percentages.
(NOTE: Circle the true statement.) (1 point)

   a. The lower the cash flow sensitivity percentages, the less borrowed capital Murphy Farms is using
   b. The higher the cash flow sensitivity percentages, the less borrowed capital Murphy Farms is using
   c. The percentages should be increasing over time

End of Part III – PROJECTED CASH FLOW

Total Possible Points = 32 POINTS EARNED PART III = _____

Participant Number _**KEY**_____ State Abbreviation _____

PART IV – MARKETING

A. Answer the following questions by circling the correct response. (1 point each)

1. When the Murphy's sell fall soybeans to the Bio-Diesel plant in May for fall delivery it is considered a:

   a. Futures contract
   b. Pre harvest sales
   c. Forward contract
   d. Option sale

2. In the futures market for corn and soybeans, one futures contract covers:

   a. 1,000 bushels
   b. 3,000 bushels
   c. 5,000 bushels
   d. 7,000 bushels

3. The percent change in quantity divided by percent change in price is:

   a. Demand
   b. Utility
   c. Elasticity
   d. Margin

4. The difference in the future's price and local price is called:

   a. Basis
   b. Strike price
   c. Net price
   d. Premium

5. Gives you the right to sell underlying futures at a specific price:

   a. Call option
   b. Put option
   c. Short position
   d. Long position

6. The funds deposited with a broker to trade futures contracts is called:

   a. Basis
   b. Margin
   c. Commission
   d. Cover cost

7. A supply curve shows the relationship between quantity supplied and

   a. Quality
   b. Demand
   c. Price
   d. Variety

8. Which of the following is NOT an advantage of a fixed price forward contract sale?

   a. Delivery possible to a local elevator
   b. Eliminates the risk of lower prices
   c. Delivery of specified quantity is required
   d. Seller can lock in carrying charges

9. A decrease in the value of the U.S. dollar relative to other countries currency should:

   a. Have no effect on imports or exports to the U.S.
   b. Increase exports from other countries to the U.S.
   c. Less costly imports to the U.S.
   d. More costly imports to the U.S.

10. A market that has a uniform commodity such as corn or soybeans with many buyers and sellers is:

    a. Monopolistic competition
    b. A monopoly
    c. An oligopoly
    d. Pure competition

11. If the Murphy's decide to use the futures market to hedge the price of market cattle to be sold in the future they would initially:

    a. Buy futures contracts expecting to sell contracts when the cattle are sold
    b. Buy futures contracts expecting to buy more contracts when the cattle are sold
    c. Sell futures contracts expecting to sell more contracts when the cattle are sold
    d. Sell futures contracts expecting to buy them back when the cattle are sold

12. Production of basic agricultural commodities and the incorporation of value-added services at various stages of marketing respond to:

    a. What the farmer can grow the best
    b. Consumer behavior
    c. How close the farm is to customers
    d. Farmers market sales

B. Roy and Patrick are considering an opportunity to cash rent a nearby 100-acre farm. They would produce corn for grain (corn (cash rent) enterprise budget (page R 10 of the resource information) and are examining several marketing alternatives to reduce the price risk. The following futures marketing information for corn is typical for the Murphy Farms' area. The Murphys are considering four marketing alternatives – (1) cash sale of the corn at harvest; (2) hedge the corn with futures contracts; (3) purchase a put option for the corn; and (4) write a call option for the corn. Since on-farm storage space would not be available for the increased corn production, the Murphys will have to deliver the crop at harvest.

Date	Futures Price Per Bushel Sept. Corn	Local Cash Price Per Bushel
March 15	$4.85	$4.10
June 15	$4.85	$4.20
July 15	$4.65	$4.10
August 15	$4.50	$4.10
(Harvest Month) September 15	$4.25	$4.00

The Murphys have never used hedging strategies before. They have been told that the net price can vary based on when the hedge is placed and lifted. Answer the following questions based on the projected prices shown above. The Murphys estimate their basis to be $0.20 per bushel. Answer the following questions about the Murphys marketing alternatives. (NOTE: Round answers to two decimal places.) (1 point each)

1. What would be the expected corn price if the Murphys waited until harvest and sold at the local cash price?

   Expected corn price under a cash sale at harvest $_**4.00**____ per bu.

2. If the Murphys hedged by selling September corn on March 15, what would be their guaranteed net corn price if basis remained constant?

   Guaranteed net corn price $__**4.65**____ per bu.
   $4.85 - $0.20 =

3. If the Murphys hedged by selling September corn on March 15 and lifting the hedge on September 15, what would be the expected net corn price utilizing both cash and futures markets?

   Expected corn price with hedge $__**4.60**____ per bu.
   $4.85 - $4.25 = $0.60 + $4.00 =

4. The Murphys will realize a net price greater than the guaranteed price only if: (NOTE: Circle the correct response.)

   a Basis remain constant
   b Basis increases
   c Basis decreases

5. If the Murphys hedged by selling September corn on March 15 and lifting the hedge on August 15, what would be the expected net corn price utilizing both cash and futures markets? Assume corn can be sold with a forward contract for $4.10 in August (before harvest).

   Expected corn price with hedge $__**4.45**____ per bu.
   $4.85 - $4.50 = $0.35 + $4.10 =

6. What option appears to provide the Murphys with the best net price per bushel for their corn? (NOTE: Circle the correct response.)

   a. Cash sale at harvest
   b. March to August hedge
   c. March to September hedge

7. What market conditions would lead to your selection in question 6? (NOTE: Circle the correct response.)

   a. Corn price falling and basis widening
   b. Corn price falling and basis narrowing
   c. Corn prices increasing

C. Answer the following questions for the Murphys. (1 point each)

1. The Murphys have historically forward contracted the price they receive for the crops they have grown. They plan to continue to forward contract, but they would like to obtain the benefits if prices increase. Which of the following alternatives should they consider? (NOTE: Circle the correct response.)

   a. Sell a call option
   b. Buy a put option
   c. Sell a put option
   d. Buy a call option

2. Suppose on March 15, the Murphys purchased a put option on September corn with a strike price of $4.85 per bushel. The premium for this option was $0.15 per bushel. If they exercised the option on September 15, closed the futures position, and sold the corn at the local market, what would be the net price? (NOTE: Round answer to two decimal places.)

   Net price with put option $__**4.45**____ per bu.
   $4.85 (sell futures) - $4.25 (buy futures) - $0.15 (put premium) + $4.00 =

3. Suppose on March 15, the Murphys purchased a put option on September corn with a strike price of $4.85 per bushel. The premium for this option was $0.15 per bushel. On September 15, suppose futures price for corn had increased to $5.15 and the local cash price was $4.95 per bushel. Answer the following questions.

   a. Would the Murphys choose to exercise the put option? (NOTE: Circle the correct response.)

      Yes **No**

b. What would be the net price received for the corn in September? (NOTE: Round answer to two decimal places)

Net price for corn $__**4.80**____per bushel
$4.95 - $0.15 =

c. If the Murphys had hedged corn by selling a September futures contract on March 15, and the futures price in September had increased to $5.15 per bushel with a local cash price of $4.95 per bushel, what would be the net price for corn? (NOTE: Round decimal to two decimal places)

Net price for corn $__**4.65**___ per bushel
$5.15 - $4.85 = $0.30 (loss in futures) + $4.95 (cash price) =

4. Since Murphy Farms grows corn for grain, several alternative methods (other than forward contracts) are available to have them reduce the risk associated with price declines in corn. What *three (3)* actions should they consider? (NOTE: Circle the correct responses.) (1 point each)

a. Buy a call option
b. Sell a futures contract
c. Buy a put option
d. Sell a put option
e. Buy a crop revenue coverage (CRC) insurance policy
f. Buy a futures contract

D. Murphy Farms has 40 cows in a beef cow/calf enterprise (**page R 13 of resource information**). They usually market the steers in the fall when they are weaned. The enterprise budget projects a price of $120/cwt. for the steers. However, market prices have been falling since the budget projections were made. During a livestock marketing meeting the Murphys learned of a retained ownership program. Under this program, the owner would actually retain the ownership of the calves until they are finished in the feedlot. The feedlot would sell to a packer, subtract the cost of gain, and send the owner a check for the difference. The retained ownership program provides the owner with carcass data including body fat and rib eye area, which can be used by the owner for herd management and genetic selection.

The retained ownership program requires the owner to background his steers. Essentially, the backgrounding is taking the steer calf at weaning, placing it on forage and feed until the steer reaches approximately 800 lbs., and then sending the steer to the feedlot to be finished at 1,250 lbs.

After visiting with a contractor for backgrounding, and a feedlot manager, Roy and Patrick estimate the following:

Weaning value = 500 lbs. @ $95.00/cwt.
Marketing costs per head (if marketed locally) = $30.00/head
Cost of gain for backgrounding = 300 lbs @ $45.00/cwt.
Cost of gain in the feedlot = 450 lbs. @ $70.00/cwt.
Miscellaneous costs per head for retained ownership = $30.00 per head
Finished steer = 1,250 lbs. @ $80.00/cwt

Participant Number _**KEY**_____ State Abbreviation _____

1. Complete a partial budget form to determine the economic feasibility of participating in the retained ownership program in 2009. (1 point each)

Situation: To determine the economic feasibility of participating in the retained ownership program	
Additional Costs: **Backgrounding: 3.0*$ 45 = $135** **Feedlot: 4.5* $70 = $315** **Misc. costs = $30** Subtotals = **$480.00**	Additional Returns: **Finish steer: 12.5* $80 = $1,000** Subtotals = **$1,000.00**
Reduced Returns: **Wean steers: 5.0* $95 = $475** Subtotals = **$475.00**	Reduced Costs: **Marketing costs: $30** Subtotals = **$30.00**
Total AC + RR = **$955.00**	Total AR + RC = **$1,030.00**
Net Change in Income = **$75.00**	

2. A positive net change in income would indicate:
   (NOTE: Circle the correct response.) (1 point)

   Participate in the retained ownership program Sell the steers at weaning

3. To make the retained ownership program alternative economically feasible, what is the breakeven selling price of finished steers?
   (NOTE: Round answer to two decimals places.) (1 point)

   Breakeven selling price of finished steers = $__**74.00**___/cwt.
   12.5 * P + $30 = $955

4. The price of corn and other grains affect the cost of gain in the feedlot. What is the breakeven cost of gain per cwt. in the feedlot that would affect the Murphys decision to participate in the retained ownership program?
   (NOTE: Round answer to two decimals places.) (1 point)

   Breakeven cost of gain in feedlot = $__**86.67**___/cwt.
   4.5 * P + ($135 + $30) + $475 = $1,030

5. What net change in income would result in Murphy Farms being *indifferent* about the alternatives? (1 point)

   Net change in income = $__**0.00**____

End of Part IV – MARKETING

Total Possible Points = 38 POINTS EARNED PART IV = _____

Participant Number _**KEY**_____ State Abbreviation _____

PART V – INCOME TAX MANAGEMENT

A copy of the 2008 IRS Publication 225 – Farmer's Tax Guide is provided to each participant to use in answering questions in this section.

A. Answer the following questions. Write a (+) if the statement is correct and a (O) if the statement is incorrect. (1 point each)

__**+**__ 1. Once Murphy Farms have reported a CCC loan as income in the year received, they must report all succeeding CCC loans the same way in the same year.

__**0**__ 2. Revenue from custom work performed by Murphy Farms is not taxable

__**0**__ 3. An individual's capital gains income is always subject to self-employment tax

__**+**__ 4. Murphy Farms will have to withhold and pay FICA taxes on any employee they have paid $150 or more in wages in any year

__**+**__ 5. Roy and Ellen Murphy can make contributions to a traditional individual retirement account (IRA) plan until April 15, 2009, and still deduct the contribution from their 2008 return

__**+**__ 6. The profit from the sale of a herd bull Murphy Farms purchased a few years earlier is not subject to self-employment tax

__**+**__ 7. Murphy Farms cannot deduct the purchase cost of their feeder steers until the year the livestock are sold

__**0**__ 8. Murphy Farms can deduct principal and interest as deductible farm expenses

__**0**__ 9. There is no limit in the amount of prepayments for feed Murphy Farms can deduct from this year's taxes

__**0**__ 10. If you do not choose to depreciate your property, the basis is not reduced

B. Determine the 2008 self-employment tax for Roy Murphy. Use the *2008 Farmer's Tax Guide, Schedule SE (Self-Employment Tax)*, Section A – Short Schedule SE (Chapter 16 – sample return) as a guide for calculating the self-employment tax. (NOTE: Round all answers to the nearest dollar.) (1 point each)

Net farm profit (from partnership) – (line 1) $ 164,459

Net earning from self-employment – (line 4) $__**151,878**_
$164,459 * 0.9235 =

2008 self-employment tax – (line 5) $___**17,052**_
$151,878 * 0.029 = $4,404 + $12,648 =

C. Read the following statements concerning strategies the Murphy Farms may use to maximize after-tax income. Write a (+) if the statement is true and a (O) if the statement is false. (1 point each)

__**+**__ 1. Pay other family members wages to work on the farm

__**0**__ 2. Increase personal withdrawals from the farm partnership

__**+**__ 3. Change the business structure to an LLC or subchapter S corporation

__**+**__ 4. Establish a qualified retirement plan

__**0**__ 5. Increase family living expenses

D. Murphy Farm purchased a new tractor for use in their farming operations. The cost of the tractor was $100,000. The tractor was placed in service in January, 2008. Answer the following questions. (NOTE: Round answers to nearest dollar.) (1 point each)

1. Can this purchase qualify for a section 179 deduction?
   (NOTE: Circle the correct response.)

   Yes No

2. What is the maximum Section 179 deduction allowed for this investment?

   Maximum Section 179 deduction allowed $__**100,000**___

3. What is the unadjusted tax basis of this investment?

   Unadjusted tax basis $__**100,000**___

4. What is the adjusted tax basis of this investment (if a $10,000 Section 179 deduction is taken)?

   Adjusted tax basis $___**90.000**___

5. What is the GDS recovery period for this investment?

   GDS recovery period ___**7**____ years

6. Assuming a $10,000 Section 179 deduction, what is the additional first year's depreciation expense using Table 7-2 150% Declining Balance Method (Half-Year Convention)?

   First year's depreciation $___**9,639**____
   $90,000 * 0.1071 =

7. What is the second year's depreciation expense?

   Second year's depreciation $__**17,217**____
   $90,000 * 0.1913 =

E. Determine the total federal income taxes Roy and Ellen Murphy owe for 2008. *Use the 2008 Farmer's Tax Guide – Form 1040* (Chapter 16 – sample return) and the following information to calculate their taxes.
(NOTE: Round answers to nearest dollar.) (1 point each)

Information needed for Form 1040: Married filing jointly; 3 personal exemptions; using standard deduction

Income		
Wages (Ellen's taxable salary)	$ 36,113	
Taxable interest	2,162	
Ordinary dividends	1,169	
Capital gains (or loss)	(3,000)	
Partnership share (Murphy Farms)	164,459	
Total Income (line 22)		**$200,903**
Adjustments		
Educator Expenses	$ 250	
½ of self-employment tax	8,526	
IRA deduction	5,000	
Student loan interest deduction	4,313	
Total Adjustments (line 36)		**$ 18,089**

Adjusted Gross Income (line 37) $__**182,814**___

Personal exemptions (x $3,500) $___**10,500**___

Standard deduction $___**10,900**___

Taxable Income (line 43) $__**161,414**___

Tax (line 44) $___**33,940**___
(*NOTE: Use 2008 U.S. Tax Rate Schedule on **page R 18 of the resource information.)***
$161,414 - $131,450 =$29,964 * 0.28 = 8389.92 + $25,550 =
Self-employment tax $___**17,052**___

Total tax (line 61) $___**50,992**___

Federal income tax withheld $ 5,417

2008 estimated tax payments $ 20,000

Total payments (line71) $ 25,417

Amount of taxes owed (line 75) $__**25,575**___

End of Part V – INCOME TAX MANAGEMENT

Total Possible Points = 32 POINTS EARNED PART V = _____

Participant Number _**KEY**_____ State Abbreviation _____

PART VI – INVESTMENT ANALYSIS

A. Match the terms on the right with their correct description. Write the correct number in the blanks provided. (1 point each)

__**6**__ A calculation used to determine the current or present value of a cost or receipt expected in the future. Adjusts for time value of money.

__**7**__ Percent charged on principal for the use of money. Always expressed as an annual rate. Also called Annual Percentage Rate (APR).

__**3**__ The process of estimating the profitability of an investment, or comparing the profitability of two or more alternatives. Also called investment analysis.

__**4**__ Process of placing a current value on an asset based on its expected future earning power and the expected interest rate.

__**1**__ The repayment of a loan and the interest due with a series of equal payments over a specified period of time.

__**2**__ The receipt of (or making of) a series of uniform payments over a specified period of time.

__**5**__ Interest received from an investment is added to the principal and interest is paid again on the total sum. It can be used to determine the future value of the amount of money that you now have.

__**8**__ An investment break-even analysis. A present worth technique that compares the present value of expected receipts to the present value of expected costs. This allows the investor to compare investments and determine if an investment is potentially profitable. It is the interest rate that makes the present value of a flow of revenue and costs equal to zero.

__**9**__ The value, at this point in time, of income to be received at some future time.

1. Amortization
2. Annuity
3. Capital Budgeting
4. Capitalization
5. Compounding
6. Discounting
7. Interest Rate
8. Internal Rate of Return
9. Present Value

B. Which of the following is an important concept to use when making investment decisions? (NOTE: Circle the most correct response.) (1 point)

1. Capital required for each investment alternative should be the same
2. Choose investments that give you larger returns late in the investments' useful life
3. **Choose investments with the overall best return**

C. Roy and Patrick are considering making one of two investments. They are using the net present value to compare these two investments and want whichever investment is selected to provide at least a 10% return. The discounted present values and other data associated with each investment are presented in the table below. Use this information to answer the following questions.
(NOTE: Round answers to nearest dollar.)

Year	Discount Factors at 10%	Alternative A Present Values	Alternative B Present Values
1	0.9090	$ 5,454.00	$ 1,818.00
2	0.8264	$ 4,132.00	$ 2,479.20
3	0.7513	$ 3,005.20	$ 3,005.20
4	0.6830	$ 2,049.00	$ 3,415.00
5	0.6209	$ 1,241.80	$ 7,676.20
Sum of present value		$ 15,882.00	$ 18,393.60
Net present value		$ 882.00	$ 1,393.60

1. What is the cash flow associated with Alternative A in Year 1? (2 points)

   Cash flow for Alternative A in Year 1: $_**6,000**_____
   $5,454.00 ÷ 0.9090 =
2. How much is the investment cost for Alternative B? (2 points)

   Investment cost for Alternative B: $_**17,000**_____
   $18,393.60 - $1,393.60 =
3. Using only the net present value criteria, which of the two investments is the best? (NOTE: Circle the correct response.) (1 point)

   Alternative A **Alternative B**

For questions D and E refer to Financial Coefficients for the Time Value of Money on pages R19 and R20 of the resource information.

D. Roy and Ellen Murphy want their son Lon to attend college. To help pay college tuition they established a college saving account for him when he was born. It will be eight (8) years before Lon starts college. The current balance of this account is $20,000. If there is no additional money added to this account other than the earnings received on the account balance and the account earns a 6% annual return per year, how much will there be in 8 years?
(NOTE: Round answer to nearest dollar.) (1 point)

Account balance in eight years $_**31,876**_____
$20,000 * 1.5938 =

E. Roy and Ellen have an opportunity to invest $20,000 in a non-farm investment with an annual rate of return of 8%. At the end of five (5) years, what will be the value of their investment? (NOTE: Round answer to nearest dollar.) (1 point)

Value of investment at end of five years = $_**29,386**_____
$20,000 * 1.4693 =

Participant Number _**KEY**_____ State Abbreviation _____

F. The Murphy's' have an opportunity to purchase the 160 acres of cropland they lease from Ann Brown. The annual rental rate for the property is $100.00 per acre. The average return above variable costs from crops grown on the property before land payments, rents, and other fixed ownership costs is $324.14 per acre. The purchase price would be $1,250.00 per acre. They can finance the purchase through the seller, which would require an annual amortized payment of $13,076.80, or they can obtain a conventional loan with an annual amortized payment of $15,988.94. Both loans would require a 10% down payment and would be paid out over 30 years. Real estate taxes and ownership fixed costs would be $3,500.00 per year for this property. Assume that the money for any down payment and/or transaction costs is available.

1. Using the information provided, fill in the blanks in the following table on a per acre basis. (NOTE: Round answers to two decimal places.) (2 points each)

	OPTION A: Continue to Rent	OPTION B: Purchase with Owner Financing	OPTION C: Purchase with Conventional Financing
Return Above Variable Costs	$ 324.14	$ 324.14	$ 324.14
Annual Rent	$ **100.00**	$ 0.00	$ 0.00
Annual Amortized Payment	$ 0.00	$ **81.73**	$ **99.93**
Ownership Costs	$ 0.00	$ 21.88	$ 21.88
Net Cash Flow Per Acre	$ **224.14**	$ **220.53**	$ **202.33**

2. Which of the three options provides the best net cash flow per acre to Murphy Farms? (NOTE: Circle the correct response.) (1 point)

   OPTION A OPTION B OPTION C

3. In comparing the options of land ownership versus leasing land, which of the following factors would be an additional consideration? (1 point)
   (NOTE: Circle the correct response.)

   a The increased price of crop production operating inputs
   b Anticipated land value appreciation and/or depreciation
   c An increase or decrease in returns above variable costs

4. Which of the following annual costs is NOT subject to change? (1 point)
   (NOTE: Circle the correct response)

   a. Return above variable costs
   b. Annual rent
   c. **Annual amortized payment**
   d. Ownership costs

End of Part VI – INVESTMENT ANALYSIS

Total Possible Points = 32 POINTS EARNED PART VI = _____

Participant Number _**KEY**_____ State Abbreviation _____

PART VII – RISK MANAGEMENT

A. Match the terms on the right with the correct description. Write the correct number in the blanks provided. (1 point each)

Descriptions	Terms
__**3**__ Unexpected circumstances where the probability of an event occurring can be empirically determined.	1. Insurance
__**4**__ The act of managing or controlling exposure to risk in order to meet preset objectives or risk exposure guidelines.	2. Insurance Premium
__**5**__ Where the probability of an event occurring cannot be empirically determined. The manager does not know the future outcomes of decisions.	3. Risk
__**1**__ Economic device whereby an individual or firm substitutes a certain cost (premiums) for an uncertain financial loss (risk insured against).	4. Risk Management
__**2**__ The payment to an insurance company by a policyholder to purchase and maintain an insurance policy	5. Uncertainty

B. The Murphys have made a significant investment in an area ethanol manufacturer. On their 2008 balance sheet, this investment was valued at $75,000 (part of the Coop Stock listed on the balance sheet on **page R4 of the resource information**). While the initial period of operation produced profits, more recently the company has sustained large losses. The Murphys are concerned that the ethanol manufacturer may declare bankruptcy. If this happens, they may lose their investment.

1. If the ethanol company declares bankruptcy, what will be the percentage decrease in the 12/31/2008 net worth of Murphy Farms? Round your answer to two decimal places. (2 points)

   Percentage decrease in net worth __**19.74**_____%
   $75,000 ÷ $379,934 =

2. This reduction in net worth may cause lenders to be more cautious in making loans to the Murphys because: (NOTE: Circle the correct response.) (1 point)

   a. Total liabilities would exceed farm net worth
   b. The current ratio would decrease
   c. The farm business would no longer be solvent

3. Which of the following risk management strategies would provide the Murphy's farm partnership the best protection from the possible bankruptcy of the ethanol plant? (NOTE: Circle the correct response.) (1 point)

   a. The purchase of liability insurance
   b. Maintaining financial reserves
   c. Using futures contracts as a hedge against a decline in ethanol prices
   d. Using futures contracts as a hedge against an increase in the price of corn

C. With the wide fluctuations in grain prices and the current grain price outlook the Murphys think that grain prices for 2009 could average 10% less than the prices used in developing their 2009 enterprise budgets and projected cash flow (**on pages R 16 and R 17 of the resource information**). Such a change would result in total annual cash inflows declining by $80,192.

Locate the ending operating loan balance and the ending cash balance in the projected cash flow. Use this information and the items provided to determine the change in cash position, the new ending cash balance and the new operating loan balance for 2009. Assume the change in total annual cash inflow is the only change in the projected cash flow. All other cash inflows and outflows remain the same (2 points each)

1. Current Ending Operating Loan Balance $_____**0**__
2. Current Ending Cash Balance $__**16,380**__
3. Change in Total Cash Inflow $ (80,192)
4. Change in Cash Position $_ **(63,812)**_
5. Minimum Bank Balance $___**1,500**__
6. New Ending Operating Loan Balance $__**65,312**__
7. New Ending Bank Balance $___**1,500**__

D. The operators of farm businesses face several types of risk. The types of farm business risks have been classified into five categories: production, marketing, financial, legal and human resource. There are various ways that each of the risk categories can be managed. For each of the actions listed in the following table, indicate the type of risk that the action can be used to manage.

Match the types of risk on the right with their appropriate action. Write the correct numbers in the blanks provided. NOTE: Each risk category may be used more than once. (1 point each)

Action	Type of Risk
__**3**__ Develop a limited liability company (LLC) to serve as an operating entity	1. Financial Risk
1 or 5 Purchase crop insurance	2. Human Resource Risk
__**1**__ Rent machinery rather than purchase machinery	3. Legal Risk
__**4**__ Forward contract corn sales	4. Marketing Risk
__**2**__ Provide training opportunities for employees	5. Production Risk
__**5**__ Install irrigation system	
__**1**__ Shift from a variable interest rate loan to a fixed interest rate loan	
__**1**__ Reduce the amount of borrowed money used	
1 or 2 Injury to owner/operator	

End of Part VII – RISK MANAGEMENT

Total Possible Points = 30 POINTS EARNED PART VII = _____

Participant Number _**KEY**_____ State Abbreviation _____

PART VIII – FARM BUSINESS ORGANIZATIONS

Roy and Patrick have been discussing why Murphy Farms should change their business structure from a partnership to a Limited Liability Company (LLC). Upon advice from their tax professional they plan to report as an association taxable as a corporation. Currently they are developing an operating agreement.

To better understand the various types of farm business organizations, Roy and Patrick have researched the various types of business organizations.

A. Match the types of business organizations on the right with their definitions. Write the correct numbers in the blanks provided. (1 point each)
(NOTE: Each type may be used only once.)

__**5**__ A business organization that is structured as a corporation and that qualifies as a corporation for all purposes except taxation.

__**3**__ A business entity created when two or more persons join together to conduct a business and to share in its profits and losses.

__**4**__ A business where an individual owns, manages, assumes all the risk, and derives all the profits from a business. Also called an individual owned business.

__**2**__ A type of business organization that achieves the favorable tax attributes of a partnership, the limited liability of a corporation, and a high degree of flexibility to fit business needs.

__**1**__ A legal entity that can own property and conduct business. The entity is separate and distinct from its owners and managers. Shareholders own the business. Officers manage the business.

1. Corporation
2. Limited Liability Company
3. Partnership
4. Sole Proprietorship
5. Subchapter S Corporation

B. Distinguish between the advantages and disadvantages of a sole proprietorship. Write an “A” beside each advantage and a “D” beside each disadvantage. (1 point each)

__**D**__ Owner is personally responsible for all debts

__**A**__ Easily formed with few government regulations and restrictions

__**A**__ Directly receives the rewards of good management and labor

__**D**__ Owner might become injured or unable to manage the business

C. Distinguish between the advantages and disadvantages of a partnership. Write an "A" beside each advantage and a "D" beside each disadvantage. (1 point each)

__**D**__ Each partner is liable for wrong doings in connection with the farm business

__**A**__ Labor and management responsibilities could be divided between partners according to their individual abilities

__**D**__ The unlimited liability of each partner may restrict credit use

__**D**__ Objectives and opinions between partners may differ

__**A**__ Pooling of capital, know-how, and labor

D. Distinguish between the advantages and disadvantages of a corporation. Write an "A" beside each advantage and a "D" beside each disadvantage. (1 point each)

__**A**__ Separation of ownership and management

__**A**__ Easily transferred ownership

__**A**__ Limited liability

__**A**__ Opportunities for tax savings

__**D**__ There may be difficulty in obtaining credit from lending institutions

E. The following list of statements may describe a Limited Liability Company (LLC). Write a (+) for those statements that are true and a (O) for those statements that are false. (1 point each)

__**+**__ The affairs and conduct of the LLC are governed by an operating agreement among its members

__**+**__ Murphy Farms LLC may be dissolved by unanimous written consent of the members

__**+**__ The Murphy brothers will be responsible for all the debts of the LLC

__**+**__ Each member is liable for wrongdoings in connection with the LLC

End of Part VIII – FARM BUSINESS ORGANIZATIONS

Total Possible Points = 23 POINTS EARNED PART VIII = _____

Participant Number _**KEY**_____ State Abbreviation _____

PART IX – ANALYSIS OF THE FARM BUSINESS

A. The Murphys are concerned about the debt levels of Murphy Farms and how changes in the rate of return on assets will influence the rate of return on their equity. To answer the following questions refer to the chart from Debt Level Ratio Relationships on **page R 21 of the resource information.**

1. Which of the following would cause the ROA to decrease? (1 point)
   (NOTE: Circle the correct response.)

   a. Higher prices for corn and soybeans
   b. Lower prices for corn and soybeans
   c. Lower input prices
   d. Lower interest rates

2. Which of the following would cause the cost of debt (COD) to decrease? (1 point)
   (NOTE: Circle the correct response.)

   a. Higher prices for corn and soybeans
   b. Higher input prices
   c. Lower interest rates
   d. Increased depreciation due to capital purchases

3. Using the following information and the terms and definitions on **page R 21 of the resource information** to complete the following chart. (1 point each)
   (NOTE: Round After-Tax Return on Equity to two decimal places.)

   Debt-to-Equity Ratio = 1.00 :1 Interest Rate = 16%
   Rate of Return on Assets = 15% Marginal Tax Rate = 25%

Farm Net Worth	$ 379,934
Total Farm Liabilities	$ **379,934**
Total Farm Assets	$ **759,868**
Returns	$ **113,980**
Interest Payments	$ **60,789**
Net Returns	$ **53,191**
Taxes	$ **13,298**
After-Tax Return	$ **39,893**
After-Tax Return on Equity	**10.50** %

4. If the debt-to-equity ratio of the farm business was 0.75: 1 rather than 1: 1, would the reduction in the rate of return on assets from 48% to 15% cause a larger or smaller decrease in the after-tax return on equity? (1 point)
   (NOTE: Circle the correct response.)

   Larger **Smaller**

Participant Number _**KEY**_____ State Abbreviation _____

B. Evaluate each of the following statements as it relates to an analysis of the Murphy Farms business. Write a (+) on the blank provided before each true statement. Write an (O) on the blank before each false statement. (1 point each)

__**+**__ Farm net worth increased from 2005 to 2008

__**0**__ The farm business is insolvent

__**0**__ Net farm income from operations is decreasing

__**+**__ The projected cash flow indicates accumulated borrowing will reach a zero balance sometime in 2009

__**+**__ The equity to asset ratio has improved from 2006 to 2008

__**0**__ Total farm liabilities have decreased since 2005

__**+**__ The slaughter steer enterprise is profitable

__**0**__ Returns to labor and management are decreasing

__**0**__ The debt-to-asset ratio has been decreasing

__**+**__ Cash is adequate to service short term debt and other obligations

C. Evaluate each of the following statements as it relates to items the Murphys should consider to improve their farm business. Write a (+) on the blank provided for each statement the Murphys should consider to improve their farm business. Write a (O) on the blank before each statement they should not consider. (1 point each)

__**+**__ Adjust crop and/or livestock sales or expenses to provide a more even cash flow

__**+**__ Evaluate cash rent versus crop share lease alternatives

__**+**__ Develop written farm and family goals and objectives

__**0**__ Replace 100 acres of corn with 100 acres of wheat

__**+**__ Consider paying cash rents throughout the year, rather than in January, February, and December

__**+**__ Increase in projected yields for soybeans will improve cash flow projections

__**+**__ Develop a long-range marketing plan

__**+**__ Should maximize after-tax income

__**0**__ Continue dairy beef enterprise if baby bull calves can be purchased for $100

__**+**__ Develop a financial plan to provide guidance on use of borrowed money

End of Part IX – ANALYSIS OF THE BUSINESS

Total Possible Points = 31 POINTS EARNED PART IX = _____