

1) (16 pts. total) a) (5 pts.) Use the information given and your knowledge of the relationships among Balance Sheet entries to fill in the **five** missing cells and then answer the questions below.

BALANCE SHEET	1/1/2010	1/1/2009		1/1/2010	1/1/2009
Current Assets	280,000	270,000	Current Liabilities	250,000	
Non-Current Assets		550,000	Non-Current Liabilities		370,000
			Total Liabilities	570,000	610,000
			Equity	270,000	
Total Assets	840,000		Total Liabilities & Equity	840,000	820,000

b) (5 pts.) **Briefly** define each of the Balance Sheet terms below and give one specific farm/agricultural example for the first four:

i) Current Asset:

ii) Non-Current Asset:

iii) Current Liability:

iv) Non-Current Liability:

v) Equity (no example needed):

c) (3 pts.) Based on this Balance Sheet, what is the Current Ratio on 1/1/**2010**?

d) (3 pts.) Based on this Balance Sheet, what is the Debt to Asset Ratio on 1/1/**2010**?

**2) (16 pts. total)** Below is a simplified farm Income Statement.

**a) (3 pts.)** Use the given information and your knowledge of the relationships among Income Statement entries to fill in the **three** missing cells.

<b>INCOME STATEMENT</b>		<b>1/1/2009 to 1/1/2010</b>
Crop Sales		200,000
Livestock/Dairy Sales		<input type="text"/>
	Total Revenue	380,000
Operating Costs		<input type="text"/>
Interest Expenses		50,000
	Total Costs	270,000
	Net Farm Income from Operations	<input type="text"/>
	Unpaid Labor and Management	50,000
	Net Farm Income	60,000

Use the Income Statement above and the Balance Sheet in Question 1 to answer the questions below. Show how you calculate your answers for potential partial credit.

**b) (5 pts.)** What is this farm's Return on Assets? What is this farm's Rate of Return on Assets?

**c) (5 pts.)** What is this farm's Return on Equity? What is this farm's Rate of Return on Equity?

**d) (3 pts.)** What is this farm's Operating Profit Margin Ratio (i.e. Profit Margin)?

**3) (11 pts. total)** Briefly and concisely answer each question below.

**a) (3 pts.)** Explain what the Current Ratio is and why it is important to a farm or business.

**b) (5 pts.)** Explain what the Rate of Return on Assets and the Rate of Return on Equity are and why they are important for a farm or business.

**c) (3 pts.)** Suppose a farm's debt to asset ratio decreased in each of the last 3 years and the farm's income statement showed that the farm business had high net farm incomes. Give an explanation of how this could happen and why it is or is not a problem.

**4) (10 pts. total)** You buy a truck for \$40,000 with a useful life of 4 years and no salvage value.  
**a) (3 pts.)** Fill in this table using Straight Line Depreciation. Show your work.

Year	Depreciation During Year	Basis at Year End
1		
2		
3		
4		

**b) (4 pts.)** Fill in this table using Double Declining Balance Depreciation. Show your work.

Year	Depreciation During Year	Basis at Year End
1		
2		
3		
4		

**c) (3 pts.)** Calculate depreciation for this truck to claim for income tax purposes for **year 3** and **year 4** using the following tax table for a 7-year recovery period and the half-year convention.  
 Show your work

Year	Depreciation Rate
1	10.71%
2	19.13%
3	15.03%
4	12.25%
5	12.25%
6	12.25%
7	12.25%
8	6.13%

**1) (25 pts)** Suppose your cousin just inherited 100 acres of crop land, the first and only crop land she has ever owned, and has decided to farm it. A neighbor told her the farm has 30 base acres for corn with a payment yield of 110 bu/ac and mentioned several programs she could use. She has no idea what any of this means and she is asking you for help.

Focus only on the five following programs: i) Direct Payments, ii) Counter Cyclical Payments, iii) Marketing Assistance Loans, iv) Loan Deficiency Payments, and v) Average Crop Revenue Election (ACRE) Payments when answering the following questions.

**1a) (5 pts.)** What USDA agency should she contact to learn about these five federal commodity support programs, base acres and payment yields?

**1b) (5 pts.)** Which of these five programs use base acres and program yields?

**1c) (5 pts.)** Suppose she wants to plant the whole farm in corn. Which, if any, of these five programs will she still potentially be eligible for?

**1d) (5 pts.)** Suppose she wants to plant the whole farm in alfalfa to make hay for sale. Which, if any, of these five programs will she still potentially be eligible for?

**1e) (5 pts.)** Suppose she wants to plant the whole farm in sweet corn to sell at the farmers market. Which, if any, of these five programs will she still potentially be eligible for?

**2) (25 pts.)** For these next questions, assume she will plant all 100 acres in corn.

**2a) (5 pts.)** Assuming she is eligible, briefly explain what triggers a Direct Payment.

**2b) (5 pts)** Assuming she is eligible, briefly explain what triggers a Counter Cyclical Payment.

**2c) (5 pts)** Assuming she is eligible, briefly explain what triggers an ACRE Payment.

**2d) (5 pts)** Assuming she is eligible, briefly explain what triggers a Loan Deficiency Payment.

**2e) (5 pts)** Assuming she is eligible, briefly explain how a Marketing Assistance Loan works and why she may want to use one.

**3) (28 pts)** Your cousin is worried about risk and a neighbor told her that he buys crop insurance. She is confused because there are some many policies and different terms that she does not understand, so she asks you for some help.

**3a) (2 pts each)** For each of the crop insurance policies below, indicate whether it is an individual or area-wide (county) policy and whether it is a yield or revenue policy.

i) Crop Revenue Coverage (CRC):

ii) Group Risk Plan (GRP):

iii) Group Risk Income Plan (GRIP):

iv) Actual Production History (APH):

**3b) (5 pts)** For an individual yield policy, briefly explain what triggers an indemnity payment.

**3c) (5 pts)** For an individual revenue policy, briefly explain what triggers an indemnity payment.

**3d) (5 pts)** She is thinking about buying an APH policy. Explain what is meant by the coverage level and the price election.

**3e) (5 pts)** At the cafe in town, she heard some farmers talking about crop insurance subsidies. Briefly explain how the federal government subsidizes crop insurance for farmers.