

1) (10 pts. total) Below is a simplified farm Balance Sheet.

a) (2 pts.) Use the information given and your knowledge of the relationships among Balance Sheet entries to fill in the **four** missing cells and then answer the questions below.

BALANCE SHEET	12/31/2013	12/31/2012		12/31/2013	12/31/2012
Current Assets	800,000	675,000	Current Liabilities	450,000	<input type="text"/>
Non-Current Assets	950,000	<input type="text"/>	Non-Current Liabilities	290,000	330,000
			Total Liabilities	740,000	730,000
			Equity	<input type="text"/>	845,000
Total Assets	1,750,000	1,575,000	Total Liabilities & Equity	<input type="text"/>	1,575,000

b) (2 pts.) Based on this Balance Sheet, what is the Current Ratio on 12/31/2013?

c) (2 pts.) Based on this Balance Sheet, what is the Debt to Asset Ratio on 12/31/2013?

d) (4 pts.) Briefly define each category below and provide one farm example for each category.

Current Asset:

Non-Current Asset:

Current Liability:

Non-Current Liability:

2) (8 pts. total) Below is a simplified farm Income Statement.

a) (2 pts.) Use the given information to fill in the **three** missing cells.

INCOME STATEMENT		12/31/2012 to 12/31/2013	
Crop Sales			<input type="text"/>
Livestock/Dairy Sales		750,000	
Total Revenue		1,125,000	
Operating Costs		840,000	
Interest Expenses		35,000	
Total Costs			<input type="text"/>
Net Farm Income from Operations			<input type="text"/>
Unpaid Labor and Management		85,000	
Net Farm Income		165,000	

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

c) (2 pts.) What is this farm's Return on Equity? What is this farm's Rate of Return on Equity?

d) (2 pts.) What is this farm's Operating Profit Margin Ratio (i.e. Profit Margin)?

3) (6 pts. total) Briefly and concisely answer each question below.

a) You sell some feeder cattle for \$100,000 and use the money to buy \$100,000 of machinery without borrowing any money. Explain how this transaction affects the following measures:

a) (2 pts.) Your current assets and non-current assets.

b) (2 pts.) Your current ratio.

b) (2 pts.) Your debt to asset ratio and your equity

4) (18 pts. total) Briefly and concisely answer each question below.

a) (2 pts.) Do most farms use cash or accrual accounting for filing taxes?

b) (2 pts.) Suppose you planted and harvested corn in 2013, but sold it in 2014. If you claim the income on your 2013 taxes, is this cash accounting or accrual accounting?

c) (2 pts.) Suppose you bought seed in November 2013 to plant in May 2014. If you deduct the cost on your 2013 taxes, is this cash accounting or accrual accounting?

d) (3 pts.) Suppose you owned a large farm in another state and hired a farm manager. Would you use cash or accrual accounting to evaluate his managerial performance over the last five years? Briefly explain why.

e) (3 pts.) If you were showing your value as a farm manager to your silent partners over the last four years, would you use a market basis or a cost basis? Briefly explain why.

f) (3 pts.) If you were a banker analyzing a farmer's loan application to buy more land, would you use a market basis or a cost basis to value the land used as collateral? Briefly explain why.

g) (3 pts.) If you invested \$500,000 in a farm and you were calculating in your return on investment over the last three years, would you use a market basis or a cost basis? Briefly explain why.

5) (4 pts. total) You buy a tractor for \$120,000 with a useful life of 4 years.

a) (2 pts.) Fill in the table below using Straight Line Depreciation for this tractor assuming a \$60,000 salvage value. Show your work.

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

b) (2 pts.) Fill in the table below using Double (200%) Declining Balance Depreciation for this tractor for years 1 and 2 only. IGNORE SALVAGE VALUE. Show your work.

Year	Depreciation During Year	Value at Year End
1		
2		
3	xxxx	xxxx
4	xxxx	xxxx

6) (12 pts.) Suppose that in 2012 you paid \$130,000 for a combine and have been depreciating it for tax purposes using the tax table below.

a) (2 pts.) Enter the depreciation claimed in 2012 and 2013 in the table below.

Year	Calendar Year	Depreciation Rate	Depreciation Claimed
1	2012	14.29%	
2	2013	24.49%	
3	2014	17.49%	
4	2015	12.49%	
5	2016	8.93%	
6	2017	8.92%	
7	2018	8.93%	
8	2019	4.46%	

b) (2 pts.) What is your income tax basis in the combine at the beginning of 2014?

c) (2 pts.) If you sold the combine during 2014 for \$70,000, how much gain or loss would you report on your income tax return?

Rather than using the table in part a, suppose instead you chose the Section 179 election and deducted the full cost of the combine for your 2011 taxes.

d) (2 pts.) What is your income tax basis in the combine at the beginning of 2014?

e) (2 pts.) If you sold the combine during 2014 for \$70,000, how much gain or loss would you report on your income tax return?

f) (2 pts.) Consider ordinary income tax, capital gain tax, and self-employment tax. Of these three taxes, which one or ones is this gain or loss subject to?

7a) (3 pts.) Briefly explain an initial tax benefit of choosing the Section 179 election rather than using the standard IRS table for depreciating purchased assets.

7b) (3 pts.) Briefly explain a long-term tax benefit of choosing the Section 179 election for depreciating purchased assets that occurs when the asset is sold.

8) (22 pts. total) Provide short answers to each of the following questions. Mom and Dad own a farm, with all assets owned as marital property under Wisconsin's marital property law. Among their assets is land currently worth \$800,000 with a \$200,000 income tax basis. Use this information to answer each question below. **Briefly explain each answer.**

a) (2 pts.) If Mom and Dad sold the land to Son for \$800,000, how much gain or loss would Mom and Dad have to report as a result of the sale?

b) (2 pts.) Consider ordinary income tax, capital gain tax, and self-employment tax. Of these three taxes, which one or ones is this gain or loss subject to?

c) (2 pts.) Suppose Mom and Dad gave the land to Son. If gift taxes are due, who would pay them, Mom & Dad or Son? Based on current tax laws, would gift taxes be due?

d) (2 pts.) If Son sold the land for \$800,000 after Mom and Dad gave it to him, how much gain or loss would Son have to report as a result of the sale?

- e) **(2 pts.)** Mom dies, giving her interest in the land to Dad in her will, and then Dad gives the land to Son. How much gain or loss would Son have to report if he sold it for \$800,000?
- f) **(2 pts.)** Actually, Mom did not die, rather Mom and Dad contributed the land to a C-Corporation in exchange for ownership shares in the C-Corporation and the C-Corporation sold the land for \$800,000, how much gain or loss would the C-Corporation realize?
- i) **(2 pts.)** Would the C-Corporation pay income tax on the gain or loss?
- ii) **(2 pts.)** Instead of selling the land, the C-Corporation returns the land to Mom & Dad. Does the C-Corporation and/or Mom & Dad have to pay income tax due to this transfer?
- g) **(2 pts.)** If Mom and Dad contributed the land to an LLC in exchange for an ownership interest in the LLC and then the LLC sold the land for \$800,000, how much gain or loss would the LLC realize?
- i) **(2 pts.)** Would the LLC pay income tax on this gain or loss?
- ii) **(2 pts.)** Mom and Dad change their mind and instead of selling the land, the LLC returns the land back to Mom and Dad. Would the LLC and/or Mom & Dad have to pay income tax as a result of this transfer?

9) (9 pts. total) Provide short answers to each question below.

a) (3 pts.) Which business entities discussed in class must file or register with the state?

b) (3 pts.) Which business entities discussed in class pay tax on their income?

c) (3 pts.) If you are a member of an LLC and the LLC gets a loan to buy machinery, could the lender seize your personal assets to pay off this debt? Briefly explain why/why not.

10) (5 pts.) True or False? Mark your answer based on material discussed in class.

- a) T___ F___ Based on “Farming a Flat Function”, a wide range of input levels can be consistent with profit maximization since the profit function is “flat”.
- b) T___ F___ According to Dairy Carrie’s blog, farms are getting bigger because profitable farms naturally expand.
- c) T___ F___ Based on our discussion of the Tomandl and Vetrano video, starting a dairy grazing operation is much more expensive than a conventional dairy.
- d) T___ F___ The video about Milk Source was concerned about animal welfare at the end because of the problems with cow abuse filmed on their farm.
- e) T___ F___ According to “Farming a Flat Function” lecture, under use of inputs is often obvious in farming and over use is difficult to see.