**AAE 320 Problem Set #5 Due** **November 2, 2020 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

For this problem, you will use a balance sheet and income statement for a hypothetical farm. The balance sheet and income statement are based on an excel spreadsheet previously available from Iowa State University Extension. Use this example for this problem set: <https://aae.wisc.edu/pdmitchell/wp-content/uploads/sites/15/2019/10/SheetsPS5.xlsx>. The spreadsheet has several tabs; use the Balance Sheet and Income Statement tabs.

1. Fill in the super brief version of the farm balance sheet below using the information in the Balance Sheet table of the spreadsheet.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Assets | |  | Liabilities | |
|  | 1/1/2019 | 1/1/2020 |  | 1/1/2019 | 1/1/2020 |
| Current |  |  | Current |  |  |
| Non-Current |  |  | Non-Current |  |  |
|  |  |  | Equity |  |  |
| Total Assets |  |  | Total Liabilities & Equity |  |  |

1. Using the Balance Sheet from part a,
   1. What was the Current Ratio on 1/1/2019 and on 1/1/2020?
   2. What was the Debt to Asset Ratio on 1/1/2019 and on 1/1/2020?
   3. What was the Equity to Asset Ratio on 1/1/2019 and on 1/1/2020?
   4. What was the Debt to Equity Ratio on 1/1/2019 and on 1/1/2020?
   5. Briefly comment on these ratios: How is the farm doing?
2. Fill in the super brief version of the farm income statement below using the information in the Income Statement tab in the spreadsheet. I give a value for Unpaid Labor & Management.

|  |  |
| --- | --- |
| Total Cash Revenues |  |
| Cash Operating Expenses (without Interest) |  |
| Interest |  |
| Total Expenses (including Interest) |  |
| Unpaid Labor & Management | 85,000 |
| Net Farm Income (as per class notes) |  |

1. Using the Balance Sheet from part a and the Income Statement from part b,
   1. What was Net Farm Income (as per class notes) for 2019?
   2. What was the Net Farm Income from Operations in 2019?
   3. What was the Return on Assets and the Rate of Return on Assets in 2019?
   4. What was the Return on Equity and the Rate of Return on Equity in 2019?
   5. What was the Operating Profit Margin in 2019?
   6. How does ROROA and ROROE change if Unpaid Labor & Management is $0?
   7. Briefly comment on these ratios: How is the farm doing?

1. What types of information are missing from the sheets used to perform this analysis? Compare the spreadsheet to class notes and the sample balance sheet and income statement on the class web page: <https://aae.wisc.edu/pdmitchell/wp-content/uploads/sites/15/2019/09/ComboBalanceIncome.pdf>. Hint: Look at example the balance sheet and see what types of questions you can answer there that you cannot answer with the balance sheet used here for question 1.