Question 1:

An incomplete 2013 balance sheet for O'Keefe Industries is expressed below together with the following key financial data:

O'Keefe Industries Balance Sheet
December 31, 2013

ASSETS		**LIABILITIES AND STOCKHOLDERS' EQUITY**	
Cash	$ 30,000	Accounts payable	$ 120,000
Marketable securities	25,000	Notes payable	
Account receivable		Accruals	20,000
Inventories		Total current liabilities	
Total current assets		Long-term debt	
Net fixed assets		Stockholders' equity	$ 600,000
Total assets		**Total liabilities and stockholders' equity**	

(1) Sales totaled $1,800,000.
(2) The gross profit margin was 25%.
(3) Inventory turnover was 6.0.
(4) There are 360 days in the year.
(5) The average collection period was 40 days.
(6) The current ratio was 1.60.
(7) The total asset turnover ratio was 1.20.
(8) The debt ratio was 60%.
(9) O'Keefe had common stocks outstanding at 150,000 shares with market price of $5.15.
(10) EBIT of O'Keefe was $200,000, which resulted in net income of $90,000.

1.1 Complete the 2013 balance sheet for O'Keefe Industries by using provided information.
Note: Please fill your answer into the balance sheet above.

1.2 Assume the company's corporate tax was at 40% and cost of capital was 10%, calculate the following measures of shareholders' wealth and provide the meaning.

A) Market Value Added (MVA) and Market-to-Book ratio

B) Economic Value Added (EVA)

Question 2:

Win Hom Railroad, a public transportation company, would like to form a complete Balance Sheet and Income Statement for the year end 2013. However, some of the entries were missing. The only available data were financial ratios which could help the finance department to work out.

2013 INCOME STATEMENT (Unit: Million US$)

Net sales	
Cost of goods sold	
Selling, general, and administrative expenses	10
Depreciation	20
Earnings before interest and taxes (EBIT)	
Interest expense	
Income before tax	
Tax	
Net income	

2013 BALANCE SHEET (Unit: Million US$)

	2013
Assets	
Cash and marketable securities	
Receivables	
Inventories	
Total current assets	
Net property, plant, and equipment	
Total assets	

Liabilities and shareholders' equity	
Accounts payable	25
Notes payable	30
Total current liabilities	
Long-term debt	
Shareholders' equity	
Total liabilities and shareholders' equity	**115**

2.1 Complete the 2013 Balance Sheet and Income Statement for Win Hom Railroad by using the financial ratios provided. Assume a 360-day year. Fill your answer into the Balance Sheet and the Income Statement on previous page.

Ratios	**2013 Win Hom Railroad**
Long-term debt ratio	0.20
Times interest earned	8.00
Current ratio	1.40
Quick ratio	1.00
Cash ratio	0.20
Return on assets	21.30%
Return on equity	66.22%
Inventory turnover	5.00
Average collection period	88.00 days

2.2 Financial Manager of Win Hom Railroad wanted to measure overall performance of the company. She wondered whether the benchmark should be BangChak Hospital, which is a company in health service industry, or its own performance of the previous year. How would you suggest? Why?

Ratios	**2013 Win Hom Railroad**	**2013 BangChak Hospital**	**2012 Win Hom Railroad**
Long-term debt ratio	0.20	0.40	0.30
Times interest earned	8.00	5.00	6.50
Current ratio	1.40	2.00	1.20
Quick ratio	1.00	0.90	0.85
Cash ratio	0.20	0.75	0.25
Return on assets	21.30%	25.00%	20.00%
Return on equity	66.22%	45.00%	50.00%
Inventory turnover	5.00	10.00	3.00
Average collection period	88.00 days	28.00 days	75.00 days

2.3 Summarize the company's overall performance compared with an appropriate benchmark you suggested from (2.2).

Question 3:

The financial statements of Win Hom Industries for the year ended December 31, 2013, follow.

Win Hom Industries' Income Statement
for the Year Ended December 31, 2013

Sale revenue	160,000
Less: Cost of goods sold	106,000
Gross profit	**54,000**
Less Operating expenses	
Selling expense	16,000
General and administrative expenses	10,000
Lease expense	1,000
Depreciation expense	10,000
Total operating expense	37,000
Operating profits	**17,000**
Less: Interest expense	6,100
Net profits before taxes	**10,900**
Less: Taxes	4,360
Net profit after taxes	**6,540**

Win Hom Industries' Balance Sheet
December 31, 2013

Assets	
Cash	500
Marketable securities	1,000
Account receivable	25,000
Inventories	45,500
Total current assets	**72000**
Land	26,000
Buildings and equipment	90,000
Less: Accumulated depreciation	38,000
Net fixed assets	**78,000**
Total assets	**150,000**
Liabilities and Stockholders' Equity	
Account payable	22,000
Notes payable	47,000
Total current liabilities	**69,000**
Long-term debt	22,950
Common stock [a]	31,500
Retained earnings	26,550
Total liabilities and stockholders' equity	**150,000**

[a] The firm's 3,000 outstanding shares of common stocks closed 2013 at a price of $25 per share.

3.1 With the company's corporate tax at 40% and 10% cost of capital, calculate the following measures of shareholders' wealth and provide the meaning.

A) Market Value Added (MVA) and Market-to-Book ratio

B) Economic Value Added (EVA)

3.2 Use the preceding financial statements to complete the following table. Assume that the industry averages given in the table are applicable for both 2012 and 2013.

Ratio	**Industry average**	**Actual 2012**	**Actual 2013**
Current ratio	1.80	1.84	
Quick ratio	0.70	0.78	
Inventory turnover [a]	2.50	2.59	
Average collection period [a]	37 days	36 days	
Debt ratio	65%	67%	
Time interest earned ratio	3.80	4.00	
Gross profit margin	38%	40%	
Net profit margin	3.50%	3.60%	
Return on total assets	4.00%	4.00%	
Return on common equity	9.50%	8.00%	

[a] Based on a 360-day year.

3.3 Summarize the company's overall financial condition, comparing with its own performance and industry average, as related to liquidity, activity, debt, and profitability.

Summary

1. Liquidity Ratio

1.1 Current ratio $= \dfrac{\text{Current Assets}}{\text{Current Liabilities}}$

1.2 Quick ratio $= \dfrac{\text{Current Assets - Inventory}}{\text{Current Liabilities}}$

1.3 Cash ratio $= \dfrac{\text{Cash}}{\text{Current Liabilities}}$

2. Activity Ratio

2.1 Account receivable turnover $= \dfrac{\text{Sale}}{\text{Account Receivable}}$

Account receivable days $= \dfrac{\text{365 days (for 1 year)}}{\text{AR Turnover}} = \dfrac{\text{Account Receivable}}{\text{Sale per Day}}$

2.2 Inventory turnover $= \dfrac{\text{Cost of Goods Sold}}{\text{Inventory}}$

Inventory days $= \dfrac{\text{365 days (for 1 year)}}{\text{Inventory Turnover}} = \dfrac{\text{Inventory}}{\text{Cost of Goods Sold per day}}$

2.3 Account payable turnover $= \dfrac{\text{Cost of Goods Sold}}{\text{Account Payable}}$

Account payable days $= \dfrac{\text{365 days (for 1 year)}}{\text{AP Turnover}} = \dfrac{\text{Account Payable}}{\text{Cost of Goods Sold per day}}$

2.4 Fixed asset turnover $= \dfrac{\text{Sale}}{\text{Fixed Assets}}$

2.5 Total asset turnover $= \dfrac{\text{Sale}}{\text{Total Asset}}$

2.6 Capital intensity ratio $= \dfrac{\text{Total Asset}}{\text{Sale}}$

3. Leverage Ratio

3.1 Proprietary ratio = $\dfrac{\text{Equity}}{\text{Total Asset}}$

3.2 Equity multiplier ratio = $\dfrac{\text{Total Asset}}{\text{Equity}}$

3.3 Total debt ratio = $\dfrac{\text{Total Debt}}{\text{Total Asset}}$

3.4 Debt to equity ratio = $\dfrac{\text{Total Debt}}{\text{Equity}}$

3.5 Long-term debt to total capitalization ratio = $\dfrac{\text{LT Debt}}{\text{LT Debt + Equity}}$

3.6 Interest coverage ratio / Time-interest earned = $\dfrac{\text{Operating Profit}}{\text{Interest Expense}}$

3.7 Cash flow coverage ratio =

$$\frac{\text{Operating Profit + Rent Expense + Depreciation}}{\text{Interest Expense + Rent Expense + Preferred Stock Dividend/(1 – Tax Rate)}}$$

4. Profitability Ratio

4.1 Gross profit margin = $\dfrac{\text{Gross Profit}}{\text{Sale}}$

4.2 Operating profit margin = $\dfrac{\text{Operating Profit}}{\text{Sale}}$

4.3 Net profit margin = $\dfrac{\text{Net Profit}}{\text{Sale}}$

5. Market Value Ratio

5.1 Earning per share (EPS) $= \dfrac{\text{Net Profit}}{\text{Number of Common Stocks}}$

5.2 Price/Earnings ratio (P/E ratio) $= \dfrac{\text{Market Price per Share}}{\text{Number of Common Stocks}}$

5.3 Price/Book ratio $= \dfrac{\text{Market Price per Share}}{\text{Book Value per Share}}$

5.4 Dividend yield $= \dfrac{\text{Expected Dividend per Share}}{\text{Market Price per Share}}$