

**FINANCIAL
ANALYST TEAM
(150)**

REGIONAL 2026

PRELIMINARY

Judge Key

TOPIC

Initial Case Study: GreenTech Innovations. GreenTech Innovations is a startup focused on developing sustainable energy solutions. The company has created a new type of solar panel that is more efficient and cost-effective than current market offerings. GreenTech has been operating for two years and has seen moderate success in local markets. They are now looking to expand their operations and increase their market share. Below are the financial statements for the first two years of operations:

Green Tech Innovations Income Statement For the years ended December 31, 2024, and 2025		
	2024	2025
Revenues	\$600,000	\$750,000
Cost of Goods Sold	434,000	555,000
Gross Profit	\$166,000	\$195,000
Operating Expenses	58,000	65,000
Operating Income	\$108,000	\$130,000

Green Tech Innovations Income Statement For the years ended December 31, 2024, and 2025				
Assets				
Current Assets:	2024		2025	
Cash	15,000		35,000	
Accounts Receivable	92,500		138,000	
Inventory	115,600		155,000	
Prepaid Expenses	13,800		15,000	
Total Current Assets		236,900		343,000
Property Plant and Equipment:				
Land	85,000		85,000	
Building, net	450,000		440,000	
Equipment, net	400,000		350,000	
Total Property Plant and Equipment		935,000		875,000
Total Assets		\$1,171,900		\$1,218,000
Liabilities and Equity				
Current Liabilities				
Accounts Payable	65,000		81,000	
Accrued Liabilities	71,900		92,000	
Total Current Liabilities		136,900		173,000
Long Term Liabilities				
Notes Payable	150,000		125,000	
Mortgage Payable	225,000		200,000	
Total Long-Term Liabilities		375,000		325,000
Total Liabilities		511,900		498,000
Stockholders' Equity				
Common Stock	600,000		600,000	
Retained Earnings	60,000		120,000	
Total Equity		660,000		720,000
Total Liabilities and Equity		\$1,171,900		\$1,218,000

Tasks:

1. Financial Analysis
 - a) Calculate Liquidity Ratios
 - b) Calculate Debt Ratios
 - c) Calculate Profitability Ratios
 - d) Complete a Horizontal Analysis
 - e) Complete a Vertical Analysis

Based on this financial analysis, interpret how well the company operated for 2024 and 2025.

ANSWER KEY

Judges, the students may or may not calculate all ratios shown below. Secondary students are not exposed to turnover ratios so may not include these.

RATIOS	2024	2025
Liquidity		
Quick Ratio	0.79	1.00
Current Ratio	1.73	1.98
A/R Turnover		6.51
Day Sales in Receivable	56.27	67.16
Inventory Turnover		4.10
Days in Inventory	97.22	101.94
Solvency		
Debt Ratio	43.68%	40.89%
Equity Ratio	56.32%	59.11%
Debt to Equity	0.78	0.69
Profit		
Gross Profit Margin	27.67%	26.00%
Net Income Margin	18.00%	17.33%
Return on Assets		10.88%
Return on Equity		18.84%


1. Liquidity Ratios

Interpretation: Liquidity improved. A ratio above 1 indicates GreenTech can cover its short-term obligations. The increase suggests stronger short-term financial health in 2025.

2. Debt Ratios

Interpretation: GreenTech is slightly reducing its dependence on debt. This improved solvency is favorable as it reduces financial risk.

3. Profitability Ratios

 Interpretation: While revenue increased, both margins slightly decreased in 2025. This suggests that costs rose faster than revenues, especially Cost of Goods Sold.

Green Tech Innovations
Income Statement - Vertical Analysis
For the years ended December 31, 2024, and 2025

	2024		2025	
Revenues	\$600,000	100.00%	\$750,000	100.00%
Cost of Goods Sold	<u>434,000</u>	<u>72.33%</u>	<u>555,000</u>	<u>74.00%</u>
Gross Profit	\$166,000	27.67%	\$195,000	26.00%
Operating Expenses	<u>58,000</u>	<u>9.67%</u>	<u>65,000</u>	<u>8.67%</u>
Operating Income	<u>\$108,000</u>	<u>18.00%</u>	<u>\$130,000</u>	<u>17.33%</u>

Green Tech Innovations
Balance Sheet - Vertical Analysis
For the years ended December 31, 2024 and 2025

Assets				
Current Assets:	2024		2025	
Cash	15,000	1.28%	35,000	2.87%
Accounts Receivable	92,500	7.89%	138,000	11.33%
Inventory	115,600	9.86%	155,000	12.73%
Prepaid Expenses	<u>13,800</u>	<u>1.18%</u>	<u>15,000</u>	<u>1.23%</u>
Total Current Assets	236,900	20.22%	343,000	28.16%
Property Plant and Equipment:				
Land	85,000	7.25%	85,000	6.98%
Building, net	450,000	38.40%	440,000	36.12%
Equipment, net	<u>400,000</u>	<u>34.13%</u>	<u>350,000</u>	<u>28.74%</u>
Total PPE	<u>935,000</u>	<u>79.78%</u>	<u>875,000</u>	<u>71.84%</u>
Total Assets	<u>\$1,171,900</u>	<u>100.00%</u>	<u>\$1,218,000</u>	<u>100.00%</u>

Liabilities and Equity				
Current Liabilities				
Accounts Payable	65,000	5.55%	81,000	6.65%
Accrued Liabilities	<u>71,900</u>	<u>6.14%</u>	<u>92,000</u>	<u>7.55%</u>

Total Current Liabilities	136,900	11.68%	173,000	14.20%
Long Term Liabilities				
Notes Payable	150,000	12.80%	125,000	10.26%
Mortgage Payable	<u>225,000</u>	<u>19.20%</u>	<u>200,000</u>	<u>16.42%</u>
Total Long-Term Liabilities	<u>375,000</u>	<u>32.00%</u>	<u>325,000</u>	<u>26.68%</u>
Total Liabilities	511,900	43.68%	498,000	40.89%
Stockholders' Equity				
Common Stock	600,000	51.20%	600,000	49.26%
Retained Earnings	<u>60,000</u>	<u>5.12%</u>	<u>120,000</u>	<u>9.85%</u>
Total Equity	<u>660,000</u>	<u>56.32%</u>	<u>720,000</u>	<u>59.11%</u>
Total Liabilities and Equity	<u>\$1,171,900</u>	<u>100.00%</u>	<u>\$1,218,000</u>	<u>100.00%</u>

Vertical Analysis (Common-Size Financials)
Income Statement
Interpretation: Operating efficiency is solid, but the company should look into controlling cost growth.
Balance Sheet (Assets as % of Total Assets)
Interpretation: Shift from fixed assets to more current assets may indicate readiness for growth, investment in working capital, or preparing for expansion

Green Tech Innovations Income Statement - Horizontal Analysis For the years ended December 31, 2024 and 2025				
	2024	2025	\$ change	% change
Revenues	\$600,000	\$750,000	\$150,000	25.00%
Cost of Goods Sold	<u>434,000</u>	<u>555,000</u>	<u>121,000</u>	<u>27.88%</u>
Gross Profit	\$166,000	\$195,000	\$29,000	17.47%
Operating Expenses	<u>58,000</u>	<u>65,000</u>	<u>7,000</u>	<u>12.07%</u>
Operating Income	<u>\$108,000</u>	<u>\$130,000</u>	<u>\$22,000</u>	<u>20.37%</u>

Green Tech Innovations Balance Sheet - Horizontal Analysis For the years ended December 31, 2024 and 2025				
Assets				
Current Assets:	2024	2025	\$ change	% change
Cash	15,000	35,000	20,000	133.33%
Accounts Receivable	92,500	138,000	45,500	49.19%
Inventory	115,600	155,000	39,400	34.08%
Prepaid Expenses	<u>13,800</u>	<u>15,000</u>	<u>1,200</u>	<u>8.70%</u>
Total Current Assets	<u>236,900</u>	<u>343,000</u>	<u>106,100</u>	<u>44.79%</u>
Property Plant and Equipment:				
Land	85,000	85,000	-	0.00%
Building, net	450,000	440,000	(10,000)	(2.22%)
Equipment, net	<u>400,000</u>	<u>350,000</u>	<u>(50,000)</u>	<u>(12.50%)</u>
Total PPE	<u>935,000</u>	<u>875,000</u>	<u>(60,000)</u>	<u>(6.42%)</u>
Total Assets	<u>\$1,171,900</u>	<u>\$1,218,000</u>	<u>46,100</u>	<u>3.93%</u>
Liabilities and Equity				
Current Liabilities				
Accounts Payable	65,000	81,000	16,000	24.62%
Accrued Liabilities	<u>71,900</u>	<u>92,000</u>	<u>20,100</u>	<u>27.96%</u>
Total Current Liabilities	<u>136,900</u>	<u>173,000</u>	<u>36,100</u>	<u>26.37%</u>
Long Term Liabilities				
Notes Payable	150,000	125,000	(25,000)	-16.67%
Mortgage Payable	<u>225,000</u>	<u>200,000</u>	<u>(25,000)</u>	<u>-11.11%</u>
Total Long-Term Liabilities	<u>375,000</u>	<u>325,000</u>	<u>(50,000)</u>	<u>-13.33%</u>
Total Liabilities	<u>511,900</u>	<u>498,000</u>	<u>(13,900)</u>	<u>-2.72%</u>
Stockholders' Equity				
Common Stock	600,000	600,000	-	0.00%
Retained Earnings	<u>60,000</u>	<u>120,000</u>	<u>60,000</u>	<u>100.00%</u>
Total Equity	<u>660,000</u>	<u>720,000</u>	<u>60,000</u>	<u>9.09%</u>
Total Liabilities and Equity	<u>\$1,171,900</u>	<u>\$1,218,000</u>	<u>46,100</u>	<u>3.93%</u>

4. Horizontal Analysis (Year-over-Year Growth)
Interpretation Income Statement: Solid revenue and profit growth, but costs (especially COGS) grew faster than revenue, putting pressure on margins.
Interpretation Balance Sheet: The company is building liquidity (higher cash and AR), reducing long-term debt, and growing equity. Inventory growth and AR increase warrant close monitoring for cash flow impacts.

Overall Performance Summary
Strengths:
Revenue growth and increasing retained earnings
Stronger liquidity position
Reduction in long-term debt
Equity growth and good operating income margins
Areas to Watch:
Rising cost of goods sold reducing margins
Increased inventory and accounts receivable (may strain cash flow)
Operating margins slightly declined
Conclusion
GreenTech Innovations is in a healthy financial position overall, showing growth, improving liquidity, and prudent debt reduction. However, to support sustainable expansion, it must closely manage its production costs and improve efficiency to protect margins.

GENERAL GUIDELINES

- Formulate Questions:** As a team of judges, create two to three questions to ask at the end of each presentation. *Make sure to ask the same questions to every team.* Potential questions are listed below.
- Presentation Details:**
 - Setup Time:** Teams have up to 3 minutes to set up.
 - Presentation Time:** Each team has up to 10 minutes to present, followed by up to 10 minutes for judges' questions.
 - Completion:** Excuse the teams after the judges' questions are finished.
- Judging Rules:**
 - No Ties:** There can be no ties in the top 10 teams. Judges are responsible for breaking any ties.
 - Ranking:** The administrator will fill out the ranking sheet before dismissing the judges.
- Scoring:**
 - Individual scores are not to be given to students.
 - Only general statements are to be shared.
 - Teams are not allowed to ask questions.
 - Please share your comments directly online. Contestants will see these comments which will help prepare them for future competitions.
- Post-Presentation:**
 - Materials:** Give any contest materials to the administrator.
 - Audience:** No audience is allowed in the contest room.

POTENTIAL JUDGE'S QUESTIONS

1. What does the ratio analysis tell you about GreenTech?
2. What trends do you see in inventory, and how might that affect operations?
3. What is the biggest risk you see in the company's current trajectory?
4. Why did the profit percentage change from 2024 to 2025?
5. Do you believe GreenTech is ready for expansion? Why or why not?

FINAL STEPS

Double-check and verify all scores.