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 FINANCIAL ANALYSIS
 TECHNIQUES

1. Lightfoot Shoe Company reported sales of \$100 million for the year ended 20X7. Lightfoot expects sales to increase 10% in 20X8. Cost of goods sold is expected to remain constant at 40% of sales and Lightfoot would like to have an average of 73 days of inventory on hand in 20X8. Forecast Lightfoot's average inventory for 20X8 assuming a 365-day year.

- (A) \$ 22.0 million.
 (B) \$ 8.0 million.
 (C) \$ 8.8 million.

2. Use the following data from Delta's common size financial statement to answer the question:

| | | |
|----------------------|---|---------|
| Earnings after taxes | = | 18% |
| Equity | = | 40% |
| Current assets | = | 60% |
| Current liabilities | = | 30% |
| Sales | = | \$ 300 |
| Total assets | = | \$1,400 |

What is Delta's after-tax return on equity?

- (A) 18.0%.
 (B) 5.0%.
 (C) 9.6%.

3. An analyst has gathered the following information about a company:

| Balance Sheet | |
|--------------------------|-------------|
| Assets | |
| Cash | 100 |
| Accounts Receivable | 750 |
| Marketable Securities | 300 |
| Inventory | 850 |
| Property, Plant & Equip | 900 |
| Accumulated Depreciation | (150) |
| Total Assets | 2750 |

| <i>Liabilities and Equity</i> | |
|---|-------------|
| Accounts Payable | 300 |
| Short-Term Debt | 130 |
| Long-Term Debt | 700 |
| Common Stock | 1000 |
| Retained Earnings | 620 |
| Total Liab. and Stockholder's equity | 2750 |

| Income Statement | |
|-------------------------|------|
| Sales | 1500 |
| COGS | 1100 |
| Gross Profit | 400 |
| SG&A | 150 |
| Operating Profit | 250 |
| Interest Expense | 25 |
| Taxes | 75 |
| Net Income | 150 |

What is the receivables collection period?

- (A) 365.
- (B) 183.
- (C) 243.

4. Paragon Company's operating profits are \$100,000, interest expense is \$25,000, and earnings before taxes are \$75,000. What is Paragon's interest coverage ratio?
- (A) 1 time.
 - (B) 3 times.
 - (C) 4 times.
5. The difference between the current ratio and the quick ratio is that the quick ratio excludes:
- (A) inventory.
 - (B) marketable securities.
 - (C) non-current assets.
6. An analyst has gathered the following information about a firm:
- Quick ratio of 0.25.
 - Cash ratio of 0.20.
 - \$ 2 million in marketable securities.
 - \$ 10 million in cash.

What is their receivables balance?

- (A) 3 million.
- (B) 2 million.
- (C) 5 million.

7. During 2007, Brownfield Incorporated purchased \$140 million of inventory. For the year just ended, Brownfield reported cost of goods sold of \$130 million. Inventory at year-end was \$45 million. Calculate inventory turnover for the year.

- (A) 2.89.
- (B) 3.25.
- (C) 3.71.

8. An analyst is comparing two firms and calculates several coefficients of variation (CVs). How should these results be interpreted?

| | Firm P | Firm Q |
|---------------------|--------|--------|
| CV sales | 0.2 | 0.7 |
| CV operating income | 0.8 | 0.8 |
| CV net income | 0.4 | 0.8 |

- (A) Firm P has steadier sales than Firm Q.
- (B) Firm P has a lower net income than Firm Q.
- (C) Firm P's and Firm Q's operating costs have the same level of volatility.

9. A company has a cash conversion cycle of 70 days. If the company's payables turnover decreases from 11 to 10 and days of sales outstanding increase by 5, the company's cash conversion cycle will:

- (A) increase by approximately 2 days.
- (B) decrease by approximately 8 days.
- (C) decrease by approximately 3 days.

10. Given the following information about a firm:

- Revenues = \$1,000.
- Cost of Goods Sold = \$ 600.
- Operating Expenses = \$ 200.
- Interest Expenses = \$ 50.
- Tax Rate = 34%.

The operating profit margin is closest to:

- (A) 10%.
- (B) 40%.
- (C) 20%.

11. How are the quick ratio and the debt-to-capital ratio typically used when assessing a company's ability to meet its debt obligations?
- (A) Both are used primarily to assess its ability to meet long-term obligations.
 (B) Both are used primarily to assess its ability to meet short-term obligations.
 (C) One is used primarily to assess its ability to meet short-term obligations, and the other is used primarily to assess its ability to meet long-term obligations.

12. Are the following statements about common-size financial statements correct or incorrect?

Statement #1 – Expressing financial information in a common-size format enables the analyst to make better comparisons between two firms of similar size that operate in different industries.

Statement #2 – Common-size financial statements can be used to highlight the structural changes in the firm's operating results and financial condition that have occurred over time.

With respect to these statements:

- (A) both are correct.
 (B) both are incorrect.
 (C) only one is correct.

13. Income Statements for Royal, Inc. for the years ended December 31, 20X0 and December 31,

| | 20X0 | 20X1 |
|--------------------------|------|------|
| Sales | 78 | 82 |
| Cost of Goods Sold | (47) | (48) |
| Cost of Goods Sold | 31 | 34 |
| Sales and Administration | (13) | (14) |
| Operating Profit (EBIT) | 18 | 20 |
| Interest Expense | (6) | (10) |
| Earnings Before Taxes | 12 | 10 |
| Income Taxes | (5) | (4) |
| Earnings after Taxes | 7 | 6 |

Analysis of these statements for trends in operating profitability reveals that, with respect to Royal's gross profit margin and net profit margin:

- (A) both gross profit margin and net profit margin increased in 20X1.
 (B) gross profit margin increased in 20X1 but net profit margin decreased.
 (C) gross profit margin decreased but net profit margin increased in 20X1.

14. Which of the following is least likely a routinely used operating profitability ratio?
- (A) Sales/Total Assets.
(B) Gross profit/net sales.
(C) Net income/net sales.
15. Which of the following ratios would NOT be used to evaluate how efficiently management is utilizing the firm's assets?
- (A) Gross profit margin.
(B) Fixed asset turnover.
(C) Payables turnover.
16. An analyst has gathered the following information about a company:

| Balance Sheet | |
|---|-------------|
| Assets | |
| Cash | 100 |
| Accounts Receivable | 750 |
| Marketable Securities | 300 |
| Inventory | 850 |
| Property, Plant & Equip | 900 |
| Accumulated Depreciation | (150) |
| Total Assets | 2750 |
| Liabilities and Equity | |
| Accounts Payable | 300 |
| Short-Term Debt | 130 |
| Long-Term Debt | 700 |
| Common Stock | 1000 |
| Retained Earnings | 620 |
| Total Liab. and Stockholder's equity | 2750 |

| Income Statement | |
|-------------------------|------|
| Sales | 1500 |
| COGS | 1100 |
| Gross Profit | 400 |
| SG&A | 150 |
| Operating Profit | 250 |
| Interest Expense | 25 |
| Taxes | 75 |
| Net Income | 150 |

What is the inventory turnover ratio?

- (A) 0.77.
- (B) 1.29.
- (C) 1.59.

17. Which of the following ratios is a component of the original (three-part) DuPont equation?

- (A) Debt-to-equity ratio.
- (B) Asset turnover.
- (C) Gross profit margin.

18. Which ratio is used to measure a company's internal liquidity?

- (A) Interest coverage.
- (B) Total asset turnover.
- (C) Current ratio.

19. A company has better liquidity than its peer group if its:

- (A) quick ratio is lower.
- (B) average trade payables are lower.
- (C) receivables turnover is higher.

20. Wells Incorporated reported the following common size data for the year ended December 31, 20X7:

| Income Statement | % |
|--------------------|-------|
| Sales | 100.0 |
| Cost of goods sold | 58.2 |
| Operating expenses | 30.2 |
| Interest expense | 0.7 |
| Income tax | 5.7 |
| Net income | 5.2 |

| Balance sheet | % | | % |
|---------------------|--------|----------------------------|-------|
| Cash | 4.8 | Accounts payable | 15.0 |
| Accounts receivable | 14.9 | Accrued liabilities | 13.8 |
| Inventory | 49.4 | Long-term debt | 23.2 |
| Net fixed assets | 30.9 | Common equity | 48.0 |
| Total assets | 100.00 | Total liabilities & equity | 100.0 |

For 20X6, Wells reported sales of \$183,100,000 and for 20X7, sales of \$ 215,600,000. At the end of 20X6, Wells' total assets were \$75,900,000 and common equity was \$37,800,000. At the end of 20X7, total assets were \$ 95,300,000. Calculate Wells' current ratio and return on equity ratio for 20X7.

| | Current ratio | Return on equity |
|-----|----------------------|-------------------------|
| (A) | 2.4 | 24.5% |
| (B) | 2.4 | 26.8% |
| (C) | 4.6 | 25.2% |

21. From the extended (5-part) DuPont equation, which of the following components describes the equation EBT / EBIT?

- (A) Tax burden.
- (B) Interest burden.
- (C) Financial leverage.

22. Selected financial information gathered from the Matador Corporation follows:

| | 2007 | 2006 | 2005 |
|--------------------|--------------|--------------|--------------|
| Average debt | \$ 792,000 | \$ 800,000 | \$ 820,000 |
| Average equity | \$ 215,000 | \$ 294,000 | \$ 820,000 |
| Average equity | 5.9% | \$ 294,000 | \$ 820,000 |
| Quick ratio | 0.3 | 0.5 | 0.6 |
| Sales | \$ 1,650,000 | \$ 1,452,000 | \$ 1,304,000 |
| Cost of goods sold | \$ 1,345,000 | \$ 1,176,000 | \$ 1,043,000 |

Using only the data presented, which of the following statements is most correct?

- (A) Gross profit margin has improved.
- (B) Leverage has declined.
- (C) Return on equity has improved.

23. Which of the following is a measure of a firm's liquidity?

- (A) Net Profit Margin.
- (B) Equity Turnover.
- (C) Current Ratio.

24. Given the following income statement and balance sheet for a company:

| Balance Sheet | | |
|----------------------|------------------|------------------|
| Assets | Year 2003 | Year 2004 |
| Cash | 500 | 450 |
| Accounts Receivable | 600 | 660 |
| Inventory | 500 | 550 |
| Total CA | 1300 | 1660 |
| Plant, prop. equip | 1000 | 1250 |
| Total Assets | 2600 | 2,910 |

| Liabilities | | |
|----------------------------|------|-------|
| Accounts Payable | 500 | 550 |
| Long -Term Debt | 700 | 1102 |
| Total liabilities | 1200 | 1652 |
| Equity | | |
| Common Stock | 400 | 538 |
| Retained Earnings | 1000 | 720 |
| Total Liabilities & Equity | 2600 | 2,910 |

| Income Statement | |
|-------------------------|--------|
| Sales | 3000 |
| COGS | (1000) |
| Gross Profit | 2000 |
| SG&A | 500 |
| Interest Expense | 151 |
| EBT | 1349 |
| Taxes (30%) | 405 |
| Net Income | 944 |

What is the average receivables collection period?

- (A) 60.6 days.
- (B) 76.7 days.
- (C) 80.3 days.

25. Which of the following ratios is most likely useful for an analyst comparing two retail companies?
- (A) Sales per employee.
 - (B) Sales per square foot.
 - (C) Growth in same-store sales.
26. An analyst using vertical common-size analysis is most likely to express each item on an income statement as a percentage of:
- (A) sales.
 - (B) operating income.
 - (C) its value in a base period.

27. An analyst has gathered the following information about a company:

- Cost of goods sold = 65% of sales.
- Inventory of \$450,000.
- Sales of \$1 million.

What is the value of this firm's average inventory processing period using a 365-day year?

- (A) 0.7 days.
- (B) 1.4 days.
- (C) 252.7 days.

28. A company has a receivables turnover of 10, an inventory turnover of 5, and a payables turnover of 12. The company's cash conversion cycle is closest to:

- (A) 79 days.
- (B) 30 days.
- (C) 37 days.

29. What is a company's equity if their return on equity (ROE) is 12%, and their net income is \$10 million?

- (A) \$1,200,000.
- (B) \$120,000,000.
- (C) \$ 83,333,333.

30. Given the following income statement and balance sheet for a company:

| Balance Sheet | | |
|---------------------|-----------|-----------|
| Assets | Year 2003 | Year 2004 |
| Cash | 500 | 450 |
| Accounts Receivable | 600 | 660 |
| Inventory | 500 | 550 |
| Total CA | 1300 | 1660 |
| Plant, prop. equip | 1000 | 1250 |
| Total Assets | 2600 | 2,910 |
| Liabilities | | |
| Accounts Payable | 500 | 550 |
| Long -Term Debt | 700 | 700 |
| Total liabilities | 1200 | 1652 |

| | | |
|---------------------------------------|-------------|--------------|
| Equity | | |
| Common Stock | 400 | 400 |
| Retained Earnings | 1260 | 1260 |
| Total Liabilities & Equity | 2600 | 2,910 |

| Income Statement | |
|-------------------------|--------|
| Sales | 3000 |
| COGS | (1000) |
| Gross Profit | 2000 |
| SG&A | 500 |
| Interest Expense | 151 |
| EBT | 1349 |
| Taxes (30%) | 405 |
| Net Income | 944 |

What is the operating profit margin?

- (A) 0.50.
(B) 0.45.
(C) 0.67.

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31. An analyst has gathered the following information about a company:

| Balance Sheet | |
|---|-------------|
| Assets | |
| Cash | 100 |
| Accounts Receivable | 750 |
| Marketable Securities | 300 |
| Inventory | 850 |
| Property, Plant & Equip | 900 |
| Accumulated Depreciation | (150) |
| Total Assets | 2750 |
| Liabilities and Equity | |
| Accounts Payable | 300 |
| Short-Term Debt | 130 |
| Long-Term Debt | 700 |
| Common Stock | 1000 |
| Retained Earnings | 620 |
| Total Liab. and Stockholder's equity | 2750 |

| Income Statement | |
|------------------|------|
| Sales | 1500 |
| COGS | 1100 |
| Gross Profit | 400 |
| SG&A | 150 |
| Interest Expense | 25 |
| Taxes | 75 |
| Net Income | 150 |

What is the receivables turnover ratio?

- (A) 0.5.
- (B) 1.0.
- (C) 2.0.

32. Calculating the coefficient of variation for operating income for two firms in the same industry is most likely a helpful measure for an analyst trying to compare:

- (A) financial risk.
- (B) business risk.
- (C) credit risk.

33. To calculate the cash ratio, the total of cash and marketable securities is divided by:

- (A) total assets.
- (B) current liabilities.
- (C) total liabilities.

34. Given the following income statement and balance sheet for a company:

| Balance Sheet | | |
|---------------------|-----------|-----------|
| Assets | Year 2006 | Year 2007 |
| Cash | 200 | 450 |
| Accounts Receivable | 600 | 660 |
| Inventory | 500 | 550 |
| Total CA | 1300 | 1660 |
| Plant, prop. equip | 1000 | 1580 |
| Total Assets | 2600 | 3240 |
| Liabilities | | |
| Accounts Payable | 500 | 550 |
| Long -Term Debt | 700 | 1052 |
| Total liabilities | 1200 | 1602 |

| | | |
|---------------------------------------|-------------|-------------|
| Equity | | |
| Common Stock | 400 | 538 |
| Retained Earnings | 1000 | 1100 |
| Total Liabilities & Equity | 2600 | 3240 |

| Income Statement | |
|-------------------------|--------|
| Sales | 3000 |
| COGS | (1000) |
| Gross Profit | 2000 |
| SG&A | 500 |
| Interest Expense | 151 |
| EBT | 1349 |
| Taxes (30%) | 405 |
| Net Income | 944 |

Which of the following is closest to the company's return on equity (ROE)?

- (A) 1.83.
- (B) 0.62.
- (C) 0.29.

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35. An analyst has gathered the following information about a company:

| Balance Sheet | |
|---|-------------|
| Assets | |
| Cash | 100 |
| Accounts Receivable | 750 |
| Marketable Securities | 300 |
| Inventory | 850 |
| Property, Plant & Equip | 900 |
| Accumulated Depreciation | (150) |
| Total Assets | 2750 |
| Liabilities and Equity | |
| Accounts Payable | 300 |
| Short-Term Debt | 130 |
| Long-Term Debt | 700 |
| Common Stock | 1000 |
| Retained Earnings | 620 |
| Total Liab. and Stockholder's equity | 2750 |

| Income Statement | |
|------------------|------|
| Sales | 1500 |
| COGS | 1100 |
| Gross Profit | 400 |
| SG&A | 150 |
| Operating Profit | 150 |
| interest Expense | 25 |
| Taxes (30%) | 75 |
| Net Income | 150 |

Determine the current ratio and the cash ratio.

Current Ratio Cash Ratio

- (A) 4.65 0.93
- (B) 2.67 1.07
- (C) 1.98 1.86

36. An analyst has collected the following data about a firm:

- Receivables turnover = 10 times.
- Inventory turnover = 8 times.
- Payables turnover = 12 times.

The firm's cash conversion cycle is closest to:

- (A) 134 days.
- (B) 52 days.
- (C) 82 days.

37. Goldstar Manufacturing has an accounts receivable turnover of 10.5 times, an inventory turnover of 4 times, and payables turnover of 8 times. What is Goldstar's cash conversion cycle?

- (A) 171.64 days.
- (B) 6.50 days.
- (C) 80.38 days.

38. The following data apply to the XTC Company:

- Sales = \$1,000,000.
- Receivables = \$260,000.
- Payables = \$600,000.
- Purchases = \$800,000.
- COGS = \$800,000.
- Inventory = \$400,000.
- Net Income = \$50,000.
- Total Assets = \$800,000.

- Debt/Equity = 200%.

Which of the following statements about the company's activity ratios is most accurate? The company has:

- (A) 45 days of inventory on hand.
- (B) 95 days of sales outstanding.
- (C) 132 days of payables.

39. Comparative income statements for E Company and G Company for the year ended December 31 show the following (in \$ millions):

| | E Company | G Company |
|--------------------------|-----------|-----------|
| Sales | 70 | 90 |
| Cost of Goods Sold | (30) | (40) |
| Gross Profit | 40 | 50 |
| Sales and Administration | (5) | (15) |
| Depreciation | (5) | (10) |
| Operating Profit | 30 | 25 |
| Interest Expense | (20) | (5) |
| Earnings Before Taxes | 10 | 20 |
| Income Taxes | (4) | (8) |
| Earnings after Taxes | 6 | 12 |

The financial risk of E Company, as measured by the interest coverage ratio, is:

- (A) higher than G Company's because its interest coverage ratio is less than G Company's, but at least one-third of G Company's.
- (B) higher than G Company's because its interest coverage ratio is less than one-third of G Company's.
- (C) lower than G Company's because its interest coverage ratio is at least three times G Company's.

40. The cash conversion cycle is the:

- (A) sum of the time it takes to sell inventory and collect on accounts receivable, less the time it takes to pay for credit purchases.
- (B) sum of the time it takes to sell inventory and the time it takes to collect accounts receivable.
- (C) length of time it takes to sell inventory.

41. The following data pertains to a company's common-size financial statements.

- Current assets 40%
- Total debt 40%
- Net income 16%
- Total assets \$ 2,000
- Sales \$ 1,500
- Total asset turnover ratio 0.75
- The firm has no preferred stock in its capital structure.

The company's after-tax return on common equity is closest to:

- (A) 25%.
- (B) 15%.
- (C) 20%.

42. An analyst is most likely to calculate companies' net interest margin when evaluating:

- (A) banks.
- (B) subscription services.
- (C) property and casualty insurance companies.

43. Which of the following ratios is NOT part of the original DuPont system?

- (A) Asset turnover.
- (B) Debt to total capital.
- (C) Equity multiplier.

44. A firm's financial statements reflect the following:

| | |
|------------------------|--------------|
| Current liabilities | \$ 4,000,000 |
| Cash | \$ 400,000 |
| Inventory | \$ 1,200,000 |
| Accounts receivable | \$ 800,000 |
| Short-term investments | \$ 2,000,000 |
| Long-term investments | \$ 800,000 |
| Accounts payable | \$ 2,500,000 |

What are the firm's current ratio, quick ratio, and cash ratio?

- | | Current Ratio | Quick Ratio | Cash Ratio |
|-----|----------------------|--------------------|-------------------|
| (A) | 1.1 | 0.8 | 0.6 |
| (B) | 0.8 | 0.6 | 1.1 |
| (C) | 1.1 | 0.6 | 0.8 |

45. An analyst computes the following ratios for Iridescent Carpeting Inc. and compares the results to the industry averages:

| Financial Ratio | Iridescent Carpeting | Industry Average |
|----------------------------|----------------------|------------------|
| Current Ratio | 2.3 | 1.8 |
| Net Profit Margin | 22% | 24% |
| Return on Equity | 17% | 20% |
| Total Debt / Total Capital | 35% | 56% |
| Interest Coverage Ratio | 4.7 | 4.1 |

Based on the above data, which of the following can the analyst conclude? Compared to its competitors, Iridescent Carpeting is more:

- (A) leveraged.
(B) liquid.
(C) profitable.
46. Which of the following items is NOT in the numerator of the quick ratio?
(A) Receivables.
(B) Cash.
(C) Inventory.
47. An analyst has gathered the following data about a company:
- Days' sales outstanding of 37 days.
 - Days' payables of 30 days.
 - Days of inventory on hand of 46 days.

What is their cash conversion cycle?

- (A) 113 days.
(B) 45 days.
(C) 53 days.
48. What would be the impact on a firm's return on assets ratio (ROA) of the following independent transactions, assuming ROA is less than one?
- Transaction #1 – A firm owned investment securities that were classified as available-for-sale and there was a recent decrease in the fair value of these securities.
- Transaction #2 – A firm owned investment securities that were classified as trading securities and there was recent increase in the fair value of the securities.

| | Transaction #1 | Transaction #2 |
|-----|----------------|----------------|
| (A) | Higher | Higher |
| (B) | Higher | Lower |
| (C) | Lower | Higher |

49. Books Forever, Inc., uses short-term bank debt to buy inventory. Assuming an initial current ratio that is greater than 1, and an initial quick (or acid test) ratio that is less than 1, what is the effect of these transactions on the current ratio and the quick ratio?
- (A) Both ratios will decrease.
 - (B) Only one ratio will decrease.
 - (C) Neither ratio will decrease.
50. Which of the following statements about financial ratios is most accurate?
- (A) A company with a high debt-to-equity ratio will have a return on assets that is greater than its return on equity.
 - (B) A company that has an inventory turnover of 6 times, a receivables turnover of 9 times, and a payables turnover of 12 times will have a cash conversion cycle of approximately 71 days.
 - (C) Any firm with a high net profit margin will have a high gross profit margin and vice versa.
51. Assume that Q-Tell Incorporated is in the communications industry, which has an average receivables turnover ratio of 16 times. If the Q-Tell's receivables turnover is less than that of the industry, Q-Tell's average receivables collection period is most likely:
- (A) 20 days.
 - (B) 25 days.
 - (C) 12 days.
52. Value at risk, a common measure of capital risk, is most accurately defined as an estimate of the size of the loss that a firm:
- (A) will not exceed, assuming it puts appropriate measures in place.
 - (B) can survive incurring, over a specific period of time.
 - (C) will exceed a portion of the time, over a specific period of time.
53. A firm has a cash conversion cycle of 80 days. The firm's payables turnover goes from 11 to 12, what happens to the firm's cash conversion cycle? It:
- (A) shortens.
 - (B) may shorten or lengthen.
 - (C) lengthens.

54. What type of ratio is revenue divided by average working capital and what type of ratio is average total assets divided by average total equity?

| | Revenue / Average working capital | Revenue / Average Average total Equity |
|-----|--|---|
| (A) | Activity ratio | Solvency ratio |
| (B) | Profitability ratio | Solvency ratio |
| (C) | Activity ratio | Liquidity ratio |

55. If a company has a net profit margin of 5%, an asset turnover ratio of 2.5 and a ROE of 18%, what is the equity multiplier?

- (A) 0.69.
(B) 1.44.
(C) 2.25.

56. Johnson Corp. had the following financial results for the fiscal 2004 year:

| | |
|---------------------|-----------|
| Current ratio | 2.00 |
| Quick ratio | 1.25 |
| Current liabilities | \$100,000 |
| Inventory turnover | 12 |
| Gross profit % | 25 |

The only current assets are cash, accounts receivable, and inventory. The balance in these accounts has remained constant throughout the year. Johnson's net sales for 2004 were:

- (A) \$ 300,000.
(B) \$ 1,200,000.
(C) \$ 900,000.

57. Which of the following reasons is least likely a valid limitation of ratio analysis?

- (A) Determining the target or comparison value for a ratio is difficult.
(B) It is difficult to find comparable industry ratios.
(C) Calculation of ratios involves a large degree of subjectivity.

58. What is the net income of a firm that has a return on equity of 12%, a leverage ratio of 1.5, an asset turnover of 2, and revenue of \$1 million?

- (A) \$ 36,000.
(B) \$ 360,000.
(C) \$ 40,000.

59. As of December 31, 2007, Manhattan Corporation had a quick ratio of 2.0, current assets of \$15 million, trade payables of \$2.5 million, and receivables of \$3 million, and inventory of \$ 6 million. How much were Manhattan's current liabilities?
- (A) \$ 12.0 million.
(B) \$ 4.5 million.
(C) \$ 7.5 million.
60. Regarding the use of financial ratios in the analysis of a firm's financial statements, it is most accurate to say that:
- (A) many financial ratios are useful in isolation.
(B) a range of target values for a ratio may be more appropriate than a single target value.
(C) variations in accounting treatments have little effect on financial ratios.
61. Given the following income statement and balance sheet for a company:

| Balance Sheet | | |
|---------------------------------------|-------------|--------------|
| Assets | Year 2003 | Year 2004 |
| Cash | 500 | 450 |
| Accounts Receivable | 600 | 660 |
| Inventory | 500 | 550 |
| Total CA | 1300 | 1660 |
| Plant, prop. equip | 1000 | 1250 |
| Total Assets | 2600 | 2,910 |
| Liabilities | | |
| Accounts Payable | 500 | 550 |
| Long -Term Debt | 700 | 1102 |
| Total liabilities | 1200 | 1652 |
| Equity | | |
| Common Stock | 400 | 538 |
| Retained Earnings | 1000 | 720 |
| Total Liabilities & Equity | 2600 | 2,910 |

| Income Statement | |
|------------------|--------|
| Sales | 3000 |
| COGS | (1000) |
| Gross Profit | 2000 |
| SG&A | 500 |
| Interest Expense | 151 |
| EBT | 1349 |
| Taxes (30%) | 405 |
| Net Income | 944 |

What is the gross profit margin?

- (A) 0.333.
- (B) 0.472.
- (C) 0.666.

62. An analyst has collected the following data about a firm:

- Receivables turnover = 20 times.
- Inventory turnover = 16 times.
- Payables turnover = 24 times.

What is the cash conversion cycle?

- (A) Not enough information is given.
- (B) 26 days.
- (C) 56 days.

63. Bentlom Company's common-size financial statements show the following information:

- Current liabilities 20%
- Equity 45%

Bentlom's long-term debt-to-equity ratio is closest to:

- (A) 98%.
- (B) 78%.
- (C) 88%.

64. The traditional DuPont equation decomposes return on equity as:

- (A) $\text{EBIT/sales} \times \text{sales/assets} \times \text{assets/equity} \times (1 - \text{tax rate})$.
- (B) $\text{net income/assets} \times \text{sales/equity} \times \text{assets/sales}$.
- (C) $\text{net income/sales} \times \text{sales/assets} \times \text{assets/equity}$.

65. Ratio analysis is most useful for comparing companies:

- (A) in different industries that use the same accounting standards.
- (B) of different size in the same industry.
- (C) that operate in multiple lines of business.

66. An analyst has gathered the following information about a company:

| Balance Sheet | |
|-----------------------|-----|
| Assets | |
| Cash | 100 |
| Accounts Receivable | 750 |
| Marketable Securities | 300 |
| Inventory | 850 |

| | |
|---|-------------|
| Property, Plant & Equip | 900 |
| Accumulated Depreciation | (150) |
| Total Assets | 2750 |
| Liabilities and Equity | |
| Accounts Payable | 300 |
| Short-Term Debt | 130 |
| Long-Term Debt | 700 |
| Common Stock | 1000 |
| Retained Earnings | 620 |
| Total Liab. and Stockholder's equity | 2750 |

| Income Statement | |
|------------------|------|
| Sales | 1500 |
| COGS | 1100 |
| Gross Profit | 400 |
| SG&A | 150 |
| Operating Profit | 250 |
| Interest Expense | 25 |
| Taxes | 75 |
| Net Income | 150 |

What is the ROE?

- (A) 10.7%.
(B) 9.9%.
(C) 9.3%.

67. The latest balance sheet for XYZ, Inc. appears below:

| | 12/31/20X4 | 12/31/20X3 |
|-------------------------------|------------|------------|
| Assets | | |
| Cash | 2,098 | 410 |
| Accounts receivable | 4,570 | 4,900 |
| Inventory | 4,752 | 4,500 |
| Prepaid SGA | 877 | 908 |
| Total current assets | 12,297 | 10,718 |
| Land | 0 | 4,000 |
| Property, Plant & Equipment | 11,000 | 11,000 |
| Accumulated Depreciation | (5,862) | (5,200) |
| Total Assets | 17,435 | 20,518 |
| Liabilities and Equity | | |

| | | |
|------------------------------|--------|--------|
| Accounts Payable | 4,651 | 5,140 |
| Wages Payable | 2,984 | 2,890 |
| Dividends Payable | 100 | 100 |
| Total current liabilities | 7,735 | 8,130 |
| Long term Debt | 1,346 | 7,388 |
| Common Stock | 4,000 | 4,000 |
| Retained Earnings | 4,354 | 1,000 |
| Total Liabilities and Equity | 17,435 | 20,518 |

At the end of 20X4, what were XYZ's current and quick ratios?

Current ratio Quick ratio

- (A) 1.48 0.86
 (B) 1.59 0.86
 (C) 1.59 1.59

68. Comparing a company's ratios with those of its competitors is best described as:

- (A) cross-sectional analysis.
 (B) longitudinal analysis.
 (C) common-size analysis.

69. A firm has average days of receivables outstanding of 22 compared to an industry average of 29 days. An analyst would most likely conclude that the firm:

- (A) has better credit controls than its peer companies.
 (B) has a lower cash conversion cycle than its peer companies.
 (C) may have credit policies that are too strict.

70. Kellen Harris is a credit analyst with the First National Bank. Harris has been asked to evaluate Longhorn Supply Company's cash needs. Harris began by calculating Longhorn's turnover ratios for 2007. After a discussion with Longhorn's management, Harris decides to adjust the turnover ratios for 2008 as follows:

2007 Actual Turnover Expected Increase / (Decrease)

| | 2007 Actual Turnover | Expected Increase / (Decrease) |
|---------------------|-------------------------|-----------------------------------|
| Accounts receivable | 5.0 | 10% |
| Fixed asset | 3.0 | 7% |
| Accounts payable | 6.0 | (20%) |
| Inventory | 4.0 | (5%) |
| Equity | 5.5 | — |
| Total asset | 2.3 | 8% |

Longhorn's expected cash conversion cycle for 2008, based on the expected changes in turnover and assuming a 365 day year, is closest to:

- (A) 46 days.
- (B) 82 days.
- (C) 86 days.

71. Which of the following statements best describes vertical common-size analysis and horizontal common-size analysis?

Statement #1 – Each line item is expressed as a percentage of its base-year amount.

Statement #2 – Each line item of the income statement is expressed as a percentage of revenue and each line item of the balance sheet is expressed as a percentage of ending total assets.

Statement #3 – Each line item is expressed as a percentage of the prior year's amount.

Vertical analysis Horizontal analysis

- (A) Statement #2 Statement #1
- (B) Statement #1 Statement #2
- (C) Statement #2 Statement #3

72. Earnings before interest and taxes (EBIT) is also known as:

- (A) earnings before income taxes.
- (B) gross profit.
- (C) operating profit.

73. Given the following income statement:

| | |
|-----------------------------|-----------|
| Net Sales | 200 |
| Cost of Goods Sold | <u>55</u> |
| Gross Profit | 145 |
| Operating Expenses | <u>30</u> |
| Operating Profit (EBIT) | 115 |
| Interest | <u>15</u> |
| Earnings Before Taxes (EBT) | 100 |
| Taxes | <u>40</u> |
| Earnings After Taxes (EAT) | 60 |

What are the interest coverage ratio and the net profit margin?

Interest Coverage Ratio Net Profit Margin

- (A) 2.63 0.30
- (B) 7.67 0.30
- (C) 0.57 0.56

74. With other variables remaining constant, if a firm's asset turnover increases, its return on equity:
- (A) may increase, decrease, or remain the same.
 - (B) will decrease.
 - (C) will increase.
75. If a firm has net annual sales of \$250,000 and average receivables of \$150,000, its average collection period is closest to:
- (A) 219.0 days.
 - (B) 46.5 days.
 - (C) 1.7 days.
76. In preparing a forecast of future financial performance, which of the following best describes sensitivity analysis and scenario analysis, respectively?
- Description #1 – A computer generated analysis based on developing probability distributions of key variables that are used to drive the potential outcomes.
- Description #2 – The process of analyzing the impact of future events by considering multiple key variables.
- Description #3 – A technique whereby key financial variables are changed one at a time and a range of possible outcomes are observed. Also known as "what-if" analysis.
- | Sensitivity analysis | Scenario analysis |
|-----------------------------|--------------------------|
| (A) Description #3 | Description #1 |
| (B) Description #3 | Description #2 |
| (C) Description #2 | Description #3 |
77. Are the following ratios best classified as profitability ratios?
- Ratio #1 – Cash plus short-term marketable investments plus receivables divided by average daily cash expenditures.
- Ratio #2 – Earnings before interest and taxes divided by average total assets.
- (A) Only one of the ratios is a profitability ratio.
 - (B) Neither of the ratios is a profitability ratio.
 - (C) Both of the ratios are profitability ratios.
78. If the quick ratio is equal to 2.0, a decrease in inventory and an equal decrease in accounts payable will:
- (A) decrease the quick ratio.
 - (B) leave the quick ratio unchanged.
 - (C) increase the quick ratio.

79. An analyst has gathered the following information about a firm:

- Net sales of \$500,000.
- Cost of goods sold = \$250,000.
- EBIT of \$150,000.
- EAT of \$90,000.

What is this firm's operating profit margin?

- (A) 30%.
- (B) 18%.
- (C) 50%.

80. How would the collection of accounts receivable most likely affect the current and cash ratios?

- | | Current ratio | Cash ratio |
|-----|----------------------|-------------------|
| (A) | Increase | Increase |
| (B) | No effect | Increase |
| (C) | No effect | No effect |

81. An analyst has gathered the following information about a company:

| Balance Sheet | |
|---|-------------|
| Assets | |
| Cash | 100 |
| Accounts Receivable | 750 |
| Marketable Securities | 300 |
| Inventory | 850 |
| Property, Plant & Equip | 900 |
| Accumulated Depreciation | (150) |
| Total Assets | 2750 |
| Liabilities and Equity | |
| Accounts Payable | 300 |
| Short-Term Debt | 130 |
| Long-Term Debt | 700 |
| Common Stock | 1000 |
| Retained Earnings | <u>620</u> |
| Total Liab. and Stockholder's equity | 2750 |

| Income Statement | |
|------------------|------|
| Sales | 1500 |
| COGS | 1100 |
| Gross Profit | 400 |
| SG&A | 150 |
| Operating Profit | 250 |
| Interest Expense | 25 |
| Taxes | 75 |
| Net Income | 150 |

What is the current ratio?

- (A) 2.67.
- (B) 0.22.
- (C) 4.65.

82. Eagle Manufacturing Company reported the following selected financial information for 2007:

| | |
|---------------------------|--------------|
| Accounts payable turnover | 5.0 |
| Cost of goods sold | \$30 million |
| Average inventory | \$3 million |
| Average receivables | \$8 million |
| Total liabilities | \$35 million |
| Interest expense | \$2 million |
| Cash conversion cycle | 13.5 days |

Assuming 365 days in the calendar year, calculate Eagle's sales for the year.

- (A) \$ 52.3 million.
 - (B) \$ 58.4 million.
 - (C) \$ 57.8 million.
83. A company has a cash conversion cycle of 80 days. If the company's average receivables turnover increases from 11 to 12, the company's cash conversion cycle:
- (A) increases by approximately 3 days.
 - (B) decreases by approximately 1 day.
 - (C) decreases by approximately 3 days.
84. When the return on equity equation (ROE) is decomposed using the original DuPont system, what three ratios comprise the components of ROE?
- (A) Net profit margin, asset turnover, asset multiplier.
 - (B) Gross profit margin, asset turnover, equity multiplier.
 - (C) Net profit margin, asset turnover, equity multiplier.

85. Given the following income statement and balance sheet for a company:

| Balance Sheet | | |
|----------------------------|-------------|-------------|
| Assets | Year 2003 | Year 2004 |
| Cash | 200 | 450 |
| Accounts Receivable | 600 | 660 |
| Inventory | 500 | 550 |
| Total CA | 1600 | 1660 |
| Plant, prop. equip | 1000 | 1250 |
| Total Assets | 2600 | 2910 |
| Liabilities | | |
| Accounts Payable | 500 | 550 |
| Long -Term Debt | 700 | 1102 |
| Total liabilities | 1200 | 1652 |
| Equity | | |
| Common Stock | 400 | 538 |
| Retained Earnings | 1000 | 720 |
| Total Liabilities & Equity | 2600 | 2910 |

| Income Statement | |
|------------------|--------|
| Sales | 3000 |
| COGS | (1000) |
| Gross Profit | 2000 |
| SG&A | 500 |
| Interest Expense | 151 |
| EBT | 1349 |
| Taxes (30%) | 405 |
| Net Income | 944 |

What is the quick ratio for 2004?

- (A) 2.018.
- (B) 0.331.
- (C) 3.018.

86. In the year 20X4, a company had a net profit margin of 18%, total asset turnover of 1.75, and a financial leverage multiplier of 1.5. If the company's net profit margin declines to 10% in 20X5, what total asset turnover would be needed in order to maintain the same return on equity as in 20X4, assuming there is no change in the financial leverage multiplier?

- (A) 1.85.
- (B) 3.15.
- (C) 2.50.

87. Adams Co.'s common sized balance sheet shows that:

- Current Liabilities = 20%
- Equity = 45%
- Current Assets = 45%
- Total Assets = \$2,000

What are Adams' long-term debt to equity ratio and working capital?

| | Debt to Equity | Working Capital | |
|-----|-----------------------|------------------------|--|
| (A) | 0.78 | \$ 250 | |
| (B) | 0.78 | \$ 500 | |
| (C) | 1.22 | \$ 500 | |

88. Summit Co. has provided the following information for its most recent reporting period:

| | Beginning Figures | Ending Figures | Average Figures |
|------------------|----------------------|-------------------|--------------------|
| Sales | | \$ 800,000 | |
| EBIT | | \$ 800,000 | |
| Interest Expense | | \$ 256,000 | |
| Taxes | | \$ 256,000 | |
| Assets | \$ 3,500,000 | \$ 4,000,000 | \$ 1,850,000 |
| Equity | \$ 1,700,000 | \$ 2,000,000 | \$ 1,850,000 |

What is Summit Co.'s total asset turnover and return on equity?

| | Total Asset Turnover | Return on Equity |
|-----|-----------------------------|-------------------------|
| (A) | 1.25 | 20.8% |
| (B) | 1.33 | 15.8% |
| (C) | 1.33 | 20.8% |

89. An analyst gathered the following data about a company:

- Current liabilities are \$300.
- Total debt is \$900.
- Working capital is \$200.
- Capital expenditures are \$250.
- Total assets are \$2,000.
- Cash flow from operations is \$400.

If the company would like a current ratio of 2, they could:

- (A) increase current assets by 100 or decrease current liabilities by 50.
- (B) decrease current assets by 100 or increase current liabilities by 50.
- (C) increase current assets by 100 or increase current liabilities by 50.

90. McQueen Corporation prepared the following common-size income statement for the year ended December 31, 20X7:

| | |
|--------------------|------|
| Sales | 100% |
| Cost of goods sold | 60% |
| Gross profit | 40% |

For 20X7, McQueen sold 250 million units at a sales price of \$1 each. For 20X8, McQueen has decided to reduce its sales price by 10%. McQueen believes the price cut will double unit sales. The cost of each unit sold is expected to remain the same. Calculate the change in McQueen's expected gross profit for 20X8 assuming the price cut doubles sales.

- (A) \$ 150 million increase.
- (B) \$ 50 million increase.
- (C) \$ 80 million increase.

