## Question #1 of 90

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. ✅

**Explanation**

20X8 sales are expected to be $110 million [$100 million × 1.1] and COGS is expected to be $44 million [$110 million sales × 40%]. With 73 days of inventory on hand, average inventory is $8.8 million [($44 million COGS / 365) × 73 days].

(Module 39.5, LOS 39.f)

---

## Question #2 of 90

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%. ✅

**Explanation**

Net income after taxes = 300 × 0.18 = 54

Equity = 1400 × 0.40 = 560

ROE = Net Income / Equity = 54 / 560 = 0.0964 = 9.6%

(Module 39.2, LOS 39.b)

---

## Question #3 of 90

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 receivables collection period?

**A)** 365.

**B)** 183. ✅

**C)** 243. ❌

**Explanation**

Receivables turnover = 1,500(sales) / 750(receivables) = 2.0

Average receivables collection period = 365 / 2 = 182.5 or 183

(Module 39.2, LOS 39.b)

---

## Question #4 of 90

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. ✅

**Explanation**

ICR = operating profit ÷ I = EBIT ÷ I = 100,000 ÷ 25000 = 4

(Module 39.2, LOS 39.b)

---

## Question #5 of 90

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. ❌

**Explanation**

Current ratio = current assets / current liabilities

Quick ratio = (current assets – inventories) / current liabilities

Marketable securities are included among current assets in both ratios. Neither ratio considers non-current assets.

(Module 39.2, LOS 39.b)

---

## Question #6 of 90

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. ✗

**Explanation**

Cash ratio = (cash + marketable securities) / current liabilities

0.20 = ($10,000,000 + $2,000,000) / current liabilities

current liabilities = $12,000,000 / 0.2 = $60,000,000

Quick ratio = [cash + marketable securities + receivables] / $60,000,000

0.25 = [$10,000,000 + $2,000,000 + receivables] / $60,000,000

($60,000,000)(0.25) = $12,000,000 + receivables

$15,000,000 = $12,000,000 + receivables

$15,000,000 – $12,000,000 = receivables

$3,000,000 = receivables

(Module 39.2, LOS 39.b)

---

## Question #7 of 90

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. ❌

## Explanation

First, calculate beginning inventory given COGS, purchases, and ending inventory. Beginning inventory was $35 million [$130 million COGS + $45 million ending inventory – $140 million purchases]. Next, calculate average inventory of $40 million [($35 million beginning inventory + $45 million ending inventory) / 2]. Finally, calculate inventory turnover of 3.25 [$130 million COGS / $40 million average inventory].

(Module 39.2, LOS 39.b)

---

## Question #8 of 90

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. ❌

## Explanation

The CV is a relative measure of variability, or risk, based on standard deviation, calculated as the standard deviation of an item/mean of an item (e.g., standard deviation of sales/mean sales). A higher figure indicates higher variability. The CV does not give information about the actual size of a firm; we can therefore not conclude whether Firm P has a lower net income than Firm Q. As Firm P has a lower CV sales, this shows sales are steadier. Firm P and Q have the same CV operating income; however, as Firm P's sales are steadier, this indicates that this firm's operating costs must be more volatile.

(Module 39.5, LOS 39.e)

---

## Question #9 of 90

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. ❌

**Explanation**

cash conversion cycle (CCC) = days of sales outstanding + days of inventory on hand − number of days of payables

$$\text{number of days of payables} = \frac{365}{\text{payables turnover}} = \frac{365}{11} = 33.18 \text{ days};$$

$$\frac{365}{10} = 36.5 \text{ days}$$

Since the payables payment period increases by 3.32 days and receivables days increases by 5, CCC increases by 1.68 days.

(Module 39.2, LOS 39.b)

---

## Question #10 of 90

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%.　　　　　　　　　　　　　　　　　　　　　✅

**Explanation**

Operating profit margin = ($1,000 revenues – $600 COGS – $200 operating expenses) / $1,000 revenues = $200 / $1000 = 0.2

(Module 39.2, LOS 39.b)

---

## Question #11 of 90

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.　✅

**Explanation**

The quick ratio is a liquidity ratio. Liquidity ratios are used to measure a firm's ability to meet its short-term obligations. The debt-to-capital ratio is a solvency ratio. Solvency ratios are used to measure a firm's ability to meet its longer-term obligations.

(Module 39.2, LOS 39.b)

---

## Question #12 of 90

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. ✅

**Explanation**

Vertical common-size statements enable the analyst to make better comparisons of two firms of *different* sizes that operate in the *same* industry. Horizontal common-size financial statements express each line as a percentage of the base year figure; thus, horizontal common-size statements can be used to identify structural changes in a firm's operating results and financial condition over time.

(Module 39.1, LOS 39.a)

Income Statements for Royal, Inc. for the years ended December 31, 20X0 and December 31, 20X1 were as follows (in $ millions):

|  | 20X0 | 20X1 |
|---|---|---|
| Sales | 78 | 82 |
| Cost of Goods Sold | (47) | (48) |
| Gross Profit | 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.  ✖

**Explanation**

Royal's gross profit margin (gross profit / sales) was higher in 20X1 (34 / 82 = 41.5%) than in 20X0 (31 / 78 = 39.7%), but net profit margin (earnings after taxes / sales) declined from 7 / 78 = 9.0% in 20X0 to 6 / 82 = 7.3% in 20X1.

(Module 39.3, LOS 39.c)

---

## Question #14 of 90

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.  ✖

**Explanation**

Sales/Total Assets, or Total Asset Turnover is a measure of operating efficiency, not operating profitability.

(Module 39.2, LOS 39.b)

---

## Question #15 of 90

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. ✗

**Explanation**

The gross profit margin is used to measure a firm's operating profitability, not operating efficiency.

(Module 39.2, LOS 39.b)

---

## Question #16 of 90

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. ✗

**Explanation**

Inventory turnover = 1,100(COGS) / 850(inventory) = 1.29

(Module 39.2, LOS 39.b)

## Question #17 of 90

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. ✗

**Explanation**

The three-part DuPont approach is as follows: net profit margin × asset turnover × leverage ratio, where the leverage ratio is assets-to-equity. (Module 39.4, LOS 39.d)

## Question #18 of 90

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

**A)** Interest coverage. ✗

**B)** Total asset turnover. ✗

**C)** Current ratio. ✓

**Explanation**

Total asset turnover measures operating efficiency and interest coverage measures a company's financial risk.

(Module 39.2, LOS 39.b)

## Question #19 of 90

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. ✅

**Explanation**

Higher receivables turnover is an indicator of better receivables liquidity since receivables are converted to cash more rapidly. A lower quick ratio is an indication of less liquidity. Lower trade payables could be related to better liquidity, but could also be consistent with very poor liquidity and a requirement from its suppliers of cash payment.

(Module 39.3, LOS 39.c)

## Question #20 of 90

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% | ✖ |

**Explanation**

The current ratio is equal to 2.4 [(4.8% cash + 14.9% accounts receivable + 49.4% inventory) / (15.0% accounts payable + 13.8% accrued liabilities)]. This ratio can be calculated from the common size balance sheet because the percentages are all on the same base amount (total).

Return on equity is equal to net income divided by average total equity. Since this ratio mixes an income statement item and a balance sheet item, it is necessary to convert the common-size inputs to dollars. Net income is $11,211,200 ($215,600,000 × 5.2%) and average equity is $41,772,000 [($95,300,000 × 48.0%) + $37,800,000] / 2. Thus, 2007 ROE is 26.8% ($11,211,200 net income / $41,772,000 average equity).

(Module 39.2, LOS 39.b)

---

## Question #21 of 90

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. ❌

**Explanation**

EBT / EBIT is the interest burden, the second component in the extended DuPont equation. It shows that more leverage does not always lead to higher ROE. As leverage rises, so does the interest burden. The positive effects of leverage can be offset by the higher interest payments that accompany higher levels of debt. Net income / EBT is called the tax burden and is equal to (1 – tax rate). The higher the tax rate, the lower the ROE level. EBIT / revenue is called the EBIT margin or operating margin. (Module 39.4, LOS 39.d)

---

## Question #22 of 90

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 | $364,000 |
| Return on assets | 5.9% | 6.6% | 7.2% |
| 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.  ✔

**Explanation**

Leverage *increased* as measured by the debt-to-equity ratio from 2.25 in 2005 to 3.68 in 2007. Gross profit margin declined from 20.0% in 2005 to 18.5% in 2007. Return on equity has improved since 2005. One measure of ROE is ROA × financial leverage. Financial leverage (assets / equity) can be derived by adding 1 to the debt-to-equity ratio. In 2005, ROE was 23.4% [7.2% ROA × (1 + 2.25 debt-to-equity)]. In 2007, ROE was 27.6% [5.9% ROA × (1 + 3.68 debt-to-equity)].

(Module 39.3, LOS 39.c)

---

## Question #23 of 90

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

**A)** Net Profit Margin.  ✖

**B)** Equity Turnover.  ✖

**C)** Current Ratio.  ✔

**Explanation**

The current ratio is a liquidity measure. Equity turnover and net profit margin are used primarily as measures of a company's operating performance.

(Module 39.2, LOS 39.b)

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 |
| Cost of Goods Sold | (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. ✗

**Explanation**

Average collection period = 365 / receivables turnover

Receivables turnover = sales / average receivables = 3,000 / 630 = 4.76

Average receivables collection period = 365 / 4.76 = 76.65

(Module 39.2, LOS 39.b)

---

## Question #25 of 90

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. ✗

**Explanation**

Sales per square foot is commonly used in the retail industry and would serve as a good comparison. While growth in same-store sales may be useful to compare one company's different locations year-over-year (as it excludes any new locations), it would not be helpful for external comparisons. Sales per employee is generally used in service- or consultancy-based companies rather than retail.

(Module 39.5, LOS 39.e)

---

## Question #26 of 90

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. ✗

**Explanation**

Vertical common-size analysis of an income statement is typically done by stating each item as a percentage of sales. Stating each item on a financial statement as a percentage of its value in a base period is referred to as horizontal common-size analysis. (Module 39.1, LOS 39.a)

---

## Question #27 of 90

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. ✓

**Explanation**

COGS = (0.65)($1,000,000) = $650,000

Inventory turnover = COGS / Inventory = $650,000 / $450,000 = 1.4444

Average Inventory Processing Period = 365 / 1.4444 = 252.7 days

(Module 39.2, LOS 39.b)

---

## Question #28 of 90

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. ✗

**Explanation**

Cash conversion cycle = receivables days + inventory processing days – payables payment period.

Receivables days = 365 / receivables turnover = 365 / 10 = 36.5 days.

Inventory processing days = 365 / inventory turnover = 365 / 5 = 73.0 days.

Payables payment period = 365 / payables turnover = 365 / 12 = 30.4 days.

Cash collection cycle = 36.5 + 73.0 – 30.4 = 79.1 days.

(Module 39.2, LOS 39.b)

## Question #29 of 90

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. ✅

**Explanation**

One of the many ways ROE can be expressed is: ROE = net income / equity

0.12 = $10,000,000 / equity

Equity = $10,000,000 / 0.12 = $83,333,333

(Module 39.4, LOS 39.d)

## Question #30 of 90

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 | 2910 |
| *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 | 2910 |

| Income Statement | |
|---|---|
| Sales | 3000 |
| Cost of Goods Sold | (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. ❌

**Explanation**

Operating profit margin = (EBIT / sales) = (1,500 / 3,000) = 0.5

(Module 39.2, LOS 39.b)

---

## Question #31 of 90

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 receivables turnover ratio?

**A)** 0.5.

**B)** 1.0. ✗

**C)** 2.0. ✓

**Explanation**

Receivables turnover = 1,500(sales) / 750(receivables) = 2.0

(Module 39.2, LOS 39.b)

---

## Question #32 of 90

Question ID: 1573787

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. ✗

**Explanation**

CV for operating income = standard deviation of operating income / mean operating income. Comparing coefficients of variation among peers can aid the analyst in assessing both the relative and absolute degree of business risk a firm faces in generating income. Credit risk is the risk associated with losses stemming from the failure of a borrower to make payments of interest or principal. Financial risk looks at the capital structure of a firm, which is not included in operating income.

(Module 39.5, LOS 39.e)

---

## Question #33 of 90

Question ID: 1573711

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

**A)** total assets. ✗

**B)** current liabilities. ✓

**C)** total liabilities. ✗

**Explanation**

Current liabilities are used in the denominator for the: current, quick, and cash ratios.

(Module 39.2, LOS 39.b)

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 |
| Cost of Goods Sold | (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. ❌

**Explanation**

There are several ways to approach this question but the easiest way is to recognize that ROE = NI / average equity thus ROE = 944 / 1,519 = 0.622.

If using the traditional DuPont, ROE = (NI / Sales) × (Sales / Assets) × (Assets / Equity):

> ROE = (944 / 3,000) × (3,000 / 2,920) × (2,920 / 1,519) = 0.622

The 5-part Dupont formula gives the same result:

> ROE = (net income / EBT)(EBT / EBIT)(EBIT / revenue)(revenue / total assets)(total assets / total equity)

Where EBIT = EBT + interest = 1,349 + 151 = 1,500

> ROE 2007 = (944 / 1,349)(1,349 / 1,500)(1,500 / 3,000)(3,000 / 2,920)(2,920 / 1,519) = 0.622

(Module 39.3, LOS 39.c)

---

## Question #35 of 90

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 |

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 | ✗ |

**Explanation**

Current ratio = [100(cash) + 750(accounts receivable)+ 300(marketable securities) + 850(inventory)] / [300(AP) + 130(short term debt)] = (2000 / 430) = 4.65

Cash ratio = [100(cash) + 300(marketable securities)] / [300(AP) + 130(short term debt)] = (400 / 430) = 0.93

(Module 39.2, LOS 39.b)

---

## Question #36 of 90

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. ✗

**Explanation**

Days of sales outstanding = 365 / 10 = 36.5 days

Days of inventory on hand = 365 / 8 = 45.6 days

Days of payables = 365 / 12 = 30.4 days

Cash conversion cycle = 36.5 + 45.6 – 30.4 = 51.7 days

(Module 39.2, LOS 39.b)

---

## Question #37 of 90

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. ✓

**Explanation**

The cash conversion cycle = average receivables collection period + average inventory processing period – payables payment period. The average receivables collection period = 365 / average receivables turnover or 365 / 10.5 = 34.76. The average inventory processing period = 365 / inventory turnover or 365 / 4 = 91.25. The payables payment period = 365 / payables turnover ratio = 365 / 8 = 45.63. Putting it all together: cash conversion cycle = 34.76 + 91.25 – 45.63 = 80.38.

(Module 39.2, LOS 39.b)

# Question #38 of 90

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. ⊗

**Explanation**

Receivables turnover = $1,000,000 / $260,000 = 3.840

Days of sales outstanding = 365 / 3.840 = 95.05 days.

Inventory turnover = $800,000 / $400,000 = 2

Days of inventory on hand = 365 / 2 = 182.5 days.

Payables turnover ratio = $800,000 / $600,000 = 1.333.

Number of days of payables = 365 / 1.333 = 273.82 days.

(Module 39.2, LOS 39.b)

---

## Question #39 of 90

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. ✗

**Explanation**

E Company's interest coverage ratio (EBIT / interest expense) is (30 / 20) = 1.5.

G Company's interest coverage ratio is (25 / 5) = 5.0. Higher interest coverage means greater ability to cover required interest and lease payments. Note that 1.5 / 5.0 = 0.30, which means the interest coverage for E Company is less than 1/3 that of G Company.

(Module 39.3, LOS 39.c)

---

## Question #40 of 90

Question ID: 1573719

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. ✗

**Explanation**

Cash conversion cycle = (average receivables collection period) + (average inventory processing period) – (payables payment period)

(Module 39.2, LOS 39.b)

---

## Question #41 of 90

Question ID: 1573760

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%.                                                         ✅

**Explanation**

$$\text{ROE} = \frac{\text{net income}}{\text{equity}} = \frac{0.16(1,500)}{(1-0.40)(2,000)} = 0.20, \text{ or } 20\%$$

If the debt ratio (TD/TA) is equal to 40% and the firm has no preferred stock, the percentage of equity is 1 − 0.40, or 60%. (Module 39.2, LOS 39.b)

---

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

**A)** banks.                                                       ✅

**B)** subscription services.                                       ❌

**C)** property and casualty insurance companies.                   ❌

**Explanation**

Net interest margin (interest income / interest-earning assets) is a ratio typically used to analyze lending institutions.

(Module 39.5, LOS 39.e)

---

## Question #43 of 90

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

**A)** Asset turnover. ❌

**B)** Debt to total capital. ✅

**C)** Equity multiplier. ❌

**Explanation**

The debt to total capital ratio is not part of the original DuPont system. The firm's leverage is accounted for through the equity multiplier.

(Module 39.4, LOS 39.d)

---

## Question #44 of 90

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 | ✗ |

**Explanation**

Current ratio = (0.4 + 2.0 + 0.8 + 1.2) / 4.0 = 1.1.

Quick ratio = (0.4 + 2.0 + 0.8) / 4.0 = 0.8.

Cash ratio = (0.4 + 2.0) / 4.0 = 0.6.

(Module 39.2, LOS 39.b)

---

## Question #45 of 90

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. ✗

**Explanation**

Based on the data provided, the analyst can conclude that the company has better short-term liquidity than the industry average (i.e., its competitors) based on the current ratio. The analyst can conclude that Iridescent Carpeting has weaker profitability than its competitors based on the net profit margin and return on equity. The analyst can also conclude that the company has less financial leverage (risk) than the industry average based on the total debt / total capital ratio.

(Module 39.3, LOS 39.c)

---

## Question #46 of 90

Question ID: 1573716

Which of the following items is NOT in the numerator of the quick ratio?

**A)** Receivables. ❌

**B)** Cash. ❌

**C)** Inventory. ✅

**Explanation**

Quick ratio = (cash + marketable securities + receivables) / current liabilities

Current ratio = (cash + marketable securities + receivables + inventory) / current liabilities

(Module 39.2, LOS 39.b)

---

## Question #47 of 90

Question ID: 1573724

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. ✅

**Explanation**

Cash conversion cycle = days of sales outstanding + days of inventory on hand – number of days of payables = 37 + 46 – 30 = 53 days.

(Module 39.2, LOS 39.b)

---

## Question #48 of 90

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 | ✗ |

**Explanation**

Available-for-sale securities are reported on the balance sheet at fair value and any unrealized gains and losses bypass the income statement and are reported as an adjustment to equity. Thus, a decrease in fair value will result in a higher ROA ratio (lower assets). Trading securities are also reported on the balance sheet at fair value; however, the unrealized gains and losses are recognized in the income statement. Therefore, an increase in fair value will result in higher ROA. In this case, both the numerator and denominator are higher; however, since the ratio is less than one, the percentage change of the numerator is greater than the percentage change of the denominator, so the ratio will increase.

(Module 39.2, LOS 39.b)

---

## Question #49 of 90

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. ✗

**Explanation**

As an example, start with CA = 2, CL = 1, and Inv = 1.2. We begin with a current ratio of 2 and a quick ratio of 0.8. If the firm increases short-term bank debt (a current liability) by 1 to buy inventory (a current asset) of 1, both the numerator and denominator increase by 1, resulting in $\frac{3}{2} = 1.5$ (new current ratio) and $\frac{3-2.2}{2} = 0.4$ (new quick ratio). (Module 39.2, LOS 39.b)

---

## Question #50 of 90

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. ✗

**Explanation**

The cash conversion cycle is (365 / 6) + (365 / 9) − (365 / 12) = 60.8 + 40.6 − 30.4 = 71 days. ROA is less than ROE when net income is positive and debt is present. The fact that a company has a high gross profit margin does not necessarily mean it will have a high net profit margin. A company with a high gross margin may have a low (or negative) net margin if its operating expenses are high. (Module 39.2, LOS 39.b)

---

## Question #51 of 90

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.  ✗

**Explanation**

Average receivables collection period = 365 / receivables turnover, which is 22.81 days for the industry (= 365 / 16). If Q-Tell's receivables turnover is less than 16, its average days collection period must be greater than 22.81 days.

(Module 39.3, LOS 39.c)

---

## Question #52 of 90

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.  ✓

**Explanation**

Value at risk is an estimate of the dollar size of the loss that a firm will exceed some specific percentage of the time, over a specific period of time. While a firm may survive incurring a large loss and may be able to reduce its likelihood of large losses with appropriate measures, these are not the most accurate definitions.

(Module 39.5, LOS 39.e)

---

## Question #53 of 90

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. ✓

**Explanation**

CCC = collection period + Inv Period – Payment period.

Payment period = (365 / payables turnover) = (365 / 11) = 33; (365 / 12) = 30. This means the CCC actually increased to 83.

(Module 39.2, LOS 39.b)

---

## Question #54 of 90

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 | Average total assets / Average total equity |  |
|---|---|---|---|
| **A)** | Activity ratio | Solvency ratio | ✓ |
| **B)** | Profitability ratio | Solvency ratio | ✗ |
| **C)** | Activity ratio | Liquidity ratio | ✗ |

**Explanation**

Revenue divided by average working capital, also known as the working capital turnover ratio, is an activity ratio. Average total assets divided by average total equity, also known as the financial leverage ratio, is a solvency ratio.

(Module 39.2, LOS 39.b)

---

## Question #55 of 90

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. ✗

**Explanation**

There are many different ways to illustrate ROE one of which is:

ROE = (net profit margin)(asset turnover)(equity multiplier)

0.18 = (0.05)(2.5)(equity multiplier)

0.18 ÷ [(0.05)(2.5)] = equity multiplier

0.18 ÷ 0.125 = equity multiplier

0.18 ÷ 0.125 = 1.44

(Module 39.4, LOS 39.d)

---

## Question #56 of 90

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. ❌

**Explanation**

The 25% GP indicates that the cost of goods sold is 75% of sales. The inventory is derived from the difference between current ratio and the quick ratio. The current ratio indicates that the current assets are $200,000 and the quick assets are $125,000. The difference represents the inventory of $75,000. The inventory turnover is used to obtain cost of goods sold of $900,000. The cost of goods sold is 75% of sales, indicating that sales are $1,200,000.

(Module 39.2, LOS 39.b)

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.  ✓

**Explanation**

There is not a great deal of subjectivity involved in calculating ratios. The mechanical formulas for the calculations are fairly standard and objective for the activity, liquidity, solvency, and profitability ratios, for instance. On the other hand, determining the target or comparison value for a ratio is difficult as it requires some range of acceptable values and that introduces an element of subjectivity. Conclusions cannot be made from viewing one set of ratios as all ratios must be viewed relative to one another in order to make meaningful conclusions. It can be difficult to find comparable industry ratios, especially when analyzing companies that operate in multiple industries.

(Module 39.1, LOS 39.a)

---

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.  ✓

**Explanation**

The traditional DuPont system is given as:

ROE = (net profit margin)(asset turnover)(leverage ratio)

Solving for the net profit margin yields:

0.12 = (net profit margin) × (2) × (1.5)

0.04 = (net profit margin)

Recognizing that the net profit margin is equal to net income / revenue we can substitute that relationship into the above equation and solve for net income:

0.04 = net income / revenue = net income / $1,000,000

$40,000 = net income.

(Module 39.4, LOS 39.d)

---

## Question #59 of 90

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. ❌

**Explanation**

Manhattan's quick assets were equal to $9 million ($15 million current assets – $6 million inventory). Given a quick ratio of 2.0, quick assets were twice the current liabilities. Thus, the current liabilities must have been $4.5 million ($9 million quick assets / 2.0 quick ratio).

(Module 39.2, LOS 39.b)

---

## Question #60 of 90

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. ❌

**Explanation**

A range of target values for a financial ratio may be more appropriate that a single numerical target. Financial ratios are not useful when viewed in isolation and are only valid when compared to historical figures or peers. Comparing ratios among firms can be complicated by variations in accounting treatments used at each firm.

(Module 39.1, LOS 39.a)

---

## Question #61 of 90

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 | 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 | 2,910 |

| Income Statement | |
|---|---|
| Sales | 3000 |
| Cost of Goods Sold | (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.                                                                    ✅

**Explanation**

Gross profit margin = (gross profit / net sales) = (2,000 / 3,000) = 0.666

(Module 39.2, LOS 39.b)

---

## Question #62 of 90

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.                                                                  ❌

**Explanation**

Cash conversion cycle = receivables collection period + inventory processing period – payables payment period.

Receivables collection period = (365 / 20) = 18

Inventory processing period = (365 / 16) = 23

Payables payment period = (365 / 24) = 15

Cash conversion cycle = 18 + 23 – 15 = 26

(Module 39.2, LOS 39.b)

---

## Question #63 of 90

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%. ❌

**Explanation**

If equity equals 45% of assets and current liabilities equal 20% of assets, long-term debt must be 100 − 45 − 20 = 35% of assets.

$$\text{long-term debt to equity ratio} = \frac{\text{long-term debt}}{\text{total equity}} = \frac{0.35}{0.45} = 77.8\%$$

(Module 39.2, LOS 39.b)

---

## Question #64 of 90

Question ID: 1573773

The traditional DuPont equation decomposes return on equity as:

**A)** EBIT/sales × sales/assets × assets/equity × (1 – tax rate). ❌

**B)** net income/assets × sales/equity × assets/sales. ❌

**C)** net income/sales × sales/assets × assets/equity. ✅

**Explanation**

The traditional three-part DuPont decomposition of ROE is profit margin × asset turnover × financial leverage. Although ROE can also be decomposed as net income/assets × sales/equity × assets/sales, this is not the DuPont equation.

(Module 39.4, LOS 39.d)

---

## Question #65 of 90

Question ID: 1573703

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.  ❌

**Explanation**

Ratio analysis is a useful way of comparing companies that are similar in operations but different in size. Ratios of companies that operate in different industries are often not directly comparable. For companies that operate in several industries, ratio analysis is limited by the difficulty of determining appropriate industry benchmarks.

(Module 39.1, LOS 39.a)

---

## Question #66 of 90

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 Equity | 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%.  ✅

**Explanation**

ROE = 150(NI) / [1000(common) + 620(RE)] = 150 / 1620 = 0.0926 or 9.3%

(Module 39.4, LOS 39.d)

---

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 | ✗ |

**Explanation**

Current ratio = current assets / current liabilities = 12,297 / 7,735 = 1.59

Quick ratio = (cash + receivables) / current liabilities = 2,098 + 4,570 / 7,735 = 0.86

(Module 39.2, LOS 39.b)

---

## Question #68 of 90

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. ✗

**Explanation**

Comparing a company's ratios with those of its competitors is known as cross-sectional analysis.

(Module 39.1, LOS 39.a)

---

## Question #69 of 90

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. ✓

**Explanation**

The firm's average days of receivables should be close to the industry average. A significantly lower average days receivables outstanding, compared to its peers, is an indication that the firm's credit policy may be too strict and that sales are being lost to peers because of this. We cannot assume that stricter credit controls than the average for the industry are "better." We cannot conclude that credit sales are less, they may be more, but just made on stricter terms. The average days of receivables are only one component of the cash conversion cycle.

(Module 39.3, LOS 39.c)

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) |
| --- | --- | --- |
| 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.   ✅

**Explanation**

2008 expected days of sales outstanding is 66 [365 / (5.0 × 1.1)], 2008 days of inventory on hand is 96 [365 / (4.0 × 0.95)], and 2008 days of payables is 76 [365 / (6.0 × 0.8)]. Expected cash conversion cycle is 86 days [66 days of sales outstanding + 96 days of inventory on hand – 76 days of payables].

(Module 39.3, LOS 39.c)

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 | ❌ |

**Explanation**

Horizontal common-size analysis involves expressing each line item as a percentage of the base-year figure. Vertical common-size analysis involves expressing each line item of the income statement as a percentage of revenue and each line item of the balance sheet as a percentage of ending total assets.

(Module 39.1, LOS 39.a)

---

## Question #72 of 90

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

**A)** earnings before income taxes. ❌

**B)** gross profit. ❌

**C)** operating profit. ✅

**Explanation**

Operating profit = earnings before interest and taxes (EBIT)

Gross profit = net sales – COGS

Net income = earnings after taxes = EAT

(Module 39.2, LOS 39.b)

Given the following income statement:

| | |
|---|---|
| Net Sales | 200 |
| Cost of Goods Sold | 55 |
| Gross Profit | 145 |
| Operating Expenses | 30 |
| Operating Profit (EBIT) | 115 |
| Interest | 15 |
| Earnings Before Taxes (EBT) | 100 |
| Taxes | 40 |
| 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 | ✗ |

**Explanation**

Interest coverage ratio = (EBIT / interest expense) = (115 / 15) = 7.67

Net profit margin = (net income / net sales) = (60 / 200) = 0.30

(Module 39.2, LOS 39.b)

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. ✅

**Explanation**

The DuPont decomposition (ROE = net profit margin × asset turnover × leverage ratio) shows that ROE will increase if asset turnover increases, assuming net profit margin and leverage are unchanged.

(Module 39.4, LOS 39.d)

---

## Question #75 of 90

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. ❌

**Explanation**

Receivables turnover = $250,000 / $150,000 = 1.66667

Collection period = 365 / 1.66667 = 219 days

(Module 39.2, LOS 39.b)

---

## Question #76 of 90

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 | ✗ |

**Explanation**

*Sensitivity* analysis develops a range of possible outcomes as specific inputs are changed one at a time. Sensitivity analysis is also known as "what-if" analysis. *Scenario* analysis is based on a specific set of outcomes for multiple variables. Computer generated analysis, based on developing probability distributions of key variables, is known as *simulation* analysis.

(Module 39.5, LOS 39.f)

---

## Question #77 of 90

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. ✗

**Explanation**

(Cash + short-term marketable investments + receivables) divided by average daily cash expenditures is known as the defensive interval ratio. The defensive interval ratio is a liquidity ratio that measures the firm's ability to pay cash expenditures in the absence of external cash flows, but does not directly measure profitability. EBIT / average total assets is one variation of the return on assets ratio. Return on assets is a profitability ratio that measures the efficiency of managing assets and generating profits.

(Module 39.2, LOS 39.b)

---

## Question #78 of 90

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.  ✓

**Explanation**

The quick ratio numerator is cash plus marketable securities plus accounts receivable, and the denominator is current liabilities. The numerator is unaffected by a change in inventory, while the denominator decreases with a decrease in accounts payable, so the quick ratio will increase.

(Module 39.2, LOS 39.b)

---

## Question #79 of 90

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%.  ✗

**Explanation**

Operating profit margin = (EBIT / net sales) = ($150,000 / $500,000) = 30%

(Module 39.2, LOS 39.b)

---

## Question #80 of 90

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 | ✗ |

**Explanation**

Collecting receivables increases cash and decreases accounts receivable. Thus, current assets do not change and the current ratio is unaffected. Because the numerator of the cash ratio only includes cash and marketable securities, collecting accounts receivable increases the cash ratio.

(Module 39.2, LOS 39.b)

---

## Question #81 of 90

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 current ratio?

**A)** 2.67. ✖

**B)** 0.22. ❌

**C)** 4.65. ✅

**Explanation**

Current ratio = [100(cash) + 750(AR) + 300(marketable securities) + 850(inventory)] / [300(AP) + 130(short-term debt)] = (2,000 / 430) = 4.65

(Module 39.2, LOS 39.b)

---

## Question #82 of 90

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. ❌

**Explanation**

Set up the cash conversion cycle formula and solve for the missing variable, sales. Days in payables is equal to 73 [365 / 5 accounts payable turnover]. Days in inventory is equal to 36.5 [365 / ($30 million COGS / $3 million average inventory)]. Given the cash conversion cycle, days in inventory, and days in payables, calculate days in receivables of 50 [13.5 days cash conversion cycle + 73 days in payables – 36.5 days in inventory]. Given days in receivables of 50 and average receivables of $8 million, sales are $58.4 million [($8 million average receivables / 50 days) × 365].

(Module 39.2, LOS 39.b)

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. ✓

**Explanation**

Cash conversion cycle (CCC) = days of sales outstanding + days of inventory on hand – number of days of payables. Days of sales outstanding = 365 / receivables turnover = 365 / 11 = 33.18; 365 / 12 = 30.42. This means the CCC decreases by 2.76 days. (Module 39.2, LOS 39.b)

---

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. ✓

**Explanation**

The three ratios can be further decomposed as follows:

Net profit margin = net income/sales

Asset turnover = sales/assets

Equity multiplier = assets/equity

(Module 39.4, LOS 39.d)

---

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 | 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 |
| Cost of Goods Sold | (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. ❌

**Explanation**

Quick ratio = (cash + marketable securities + receivables) / CL = (450 + 0 + 660) / 550 = 2.018

(Module 39.2, LOS 39.b)

---

## Question #86 of 90

Question ID: 1573779

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. ❌

**Explanation**

ROE in 20X4 was 0.18 × 1.75 × 1.5 = 0.4725.

If ROE for 20X5 is unchanged from 20X4, then:

0.10 × asset turnover × 1.5 = 0.4725

Asset turnover = 3.15.

(Module 39.4, LOS 39.d)

---

## Question #87 of 90

Question ID: 1573755

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 | ✖ |

**Explanation**

If equity equals 45% of assets, and current liabilities equals 20%, then long-term debt must be 35%.

Long-Term Debt / Equity = 0.35 / 0.45 = 0.78

Working capital = CA – CL = 45% - 20% = 25% of assets

WC = 2,000(0.25) = $500

(Module 39.2, LOS 39.b)

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

| | Beginning Figures | Ending Figures | Average Figures |
|---|---|---|---|
| Sales | | $ 5,000,000 | |
| EBIT | | $ 800,000 | |
| Interest Expense | | $ 160,000 | |
| Taxes | | $ 256,000 | |
| Assets | $ 3,500,000 | $ 4,000,000 | $ 3,750,000 |
| 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% | ✓ |

**Explanation**

Total asset turnover = sales / average assets = 5,000,000 / 3,750,000 = 1.33

Return on equity = net income / average equity

Net income = EBIT – interest – taxes = 800,000 – 160,000 – 256,000 = 384,000

ROE = 384,000 / 1,850,000 = 20.8%

(Module 39.4, LOS 39.d)

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. ❌

**Explanation**

For the current ratio to equal 2.0, current assets would need to move to $600 (or up by $100) or current liabilities would need to decrease to $250 (or down by $50). Remember that CA – CL = working capital (500 – 300 = 200).

(Module 39.2, LOS 39.b)

---

## Question #90 of 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. ❌

**Explanation**

20X7 gross profit is equal to $100 million ($1 × 250 million units sold × 40% gross profit margin). The 10% price cut to $0.90 will increase cost of goods sold to 67% of sales [COGS = 0.6($1) = $0.60; $0.60 / $0.90 = 67%.]. As a result, gross profit will decrease to 33% of sales. If unit sales double in 20X8, gross profit will equal $150 million ($0.90 × 500 million units × 33% gross profit margin). Therefore, gross profit will increase $50 million ($150 million 20X8 gross profit – $100 million 20X7 gross profit).

(Module 39.5, LOS 39.f)