

# Reading 27: Financial Analysis Techniques

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## Question #1 of 92

Question ID: 500859

Companies are required to report segment data under:

- ☐ A) U.S. GAAP but not IFRS.
- ☐ B) IFRS but not U.S. GAAP.
- ☒ C) both IFRS and U.S. GAAP.

### Explanation

Both IFRS and U.S. GAAP require companies to report segment data.

### References

**Question From:** Session 7 > Reading 27 > LOS f

### **Related Material:**

- Key Concepts by LOS
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## Question #2 of 92

Question ID: 414371

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

### References

**Question From:** Session 7 > Reading 27 > LOS b

### **Related Material:**

- Key Concepts by LOS
- 

## Question #3 of 92

Question ID: 414406

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	<u>500</u>	<u>550</u>
Total CA	1300	1660
Plant, prop. equip	<u>1000</u>	<u>1250</u>
Total Assets	2600	2,910
<i>Liabilities</i>		
Accounts Payable	500	550
Long term debt	<u>700</u>	<u>1102</u>
Total liabilities	1200	1652
<i>Equity</i>		
Common Stock	400	538
Retained Earnings	<u>1000</u>	<u>720</u>
Total Liabilities & Equity	2600	2,910

#### *Income Statement*

Sales	3000
Cost of Goods Sold	<u>(1000)</u>
Gross Profit	2000
SG&A	500
Interest Expense	<u>151</u>
EBT	1349
Taxes (30%)	<u>405</u>
Net Income	944

What is the average receivables collection period?

- ✓ **A)** 76.7 days.
- ✗ **B)** 80.3 days.
- ✗ **C)** 60.6 days.

#### Explanation

Average collection period =  $365 / \text{receivables turnover}$

Receivables turnover =  $\text{sales} / \text{average receivables} = 3,000 / 630 = 4.76$

Average receivables collection period =  $365 / 4.76 = 76.65$

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS

## Question #4 of 92

Question ID: 414391

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

- ✓ **A)** Current ratio.
- X **B)** Interest coverage.
- X **C)** Total asset turnover.

### Explanation

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

### References

**Question From:** Session 7 > Reading 27 > LOS b

### **Related Material:**

- Key Concepts by LOS

## Question #5 of 92

Question ID: 414408

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	<u>(150)</u>
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	<u>1100</u>
Gross Profit	400
SG&A	150
Operating Profit	250
Interest Expense	25
Taxes	<u>75</u>

Determine the current ratio and the cash ratio.

	<u>Current Ratio</u>	<u>Cash Ratio</u>
✓ <b>A)</b>	4.65	0.93
X <b>B)</b>	2.67	1.07
X <b>C)</b>	1.98	1.86

#### Explanation

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

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

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS
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## Question #6 of 92

Question ID: 414381

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

- ✓ **A)** Inventory.
- X **B)** Cash.
- X **C)** Receivables.

#### Explanation

Quick ratio =  $(\text{cash} + \text{marketable securities} + \text{receivables}) / \text{current liabilities}$

Current ratio =  $(\text{cash} + \text{marketable securities} + \text{receivables} + \text{inventory}) / \text{current liabilities}$

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS
- 

## Question #7 of 92

Question ID: 414411

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

- |                    |        |
|--------------------|--------|
| X <b>A)</b> Higher | Lower  |
| X <b>B)</b> Lower  | Higher |
| ✓ <b>C)</b> Higher | 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.

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS

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## Question #8 of 92

Question ID: 492016

Pastel Company operates in the following lines of business which management believes have distinguishable return and risk characteristics:

	<u>Revenues</u>	<u>Assets</u>
Food	500	2,000
Beverages	1,300	6,000
Entertainment	2,500	10,000
Lodging	5,000	20,000
Services	22,000	28,000
International	<u>700</u>	<u>3,000</u>
Totals	32,000	69,000

For which of these lines is Pastel required to report segment data?

- ✓ **A)** Entertainment, Lodging, and Services.
- X **B)** International only.
- X **C)** Services and International.

#### Explanation

For portions of a company that are distinguishable by their risk and return characteristics, IFRS and U.S. GAAP require segment reporting if a portion accounts for more than 10% of the company's revenues or assets. Services and Lodging each account for more than 10% of Pastel's total revenues and assets, and Entertainment accounts for more than 10% of Pastel's total assets.

#### References

**Question From:** Session 7 > Reading 27 > LOS f

#### **Related Material:**

- Key Concepts by LOS
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### **Question #9 of 92**

Question ID: 414403

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.

X **A)** 3.71.

✓ **B)** 3.25.

X **C)** 2.89.

#### Explanation

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

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS
- 

### **Question #10 of 92**

Question ID: 414426

Given the following information about a firm what is its return on equity (ROE)?

- An asset turnover of 1.2.
- An after tax profit margin of 10%.
- A financial leverage multiplier of 1.5.

✓ **A)** 0.18.

X **B)** 0.12.

X **C)** 0.09.

#### Explanation

$$\text{ROE} = (\text{EAT} / \text{S})(\text{S} / \text{A})(\text{A} / \text{EQ})$$

$$\text{ROE} = (0.1)(1.2)(1.5) = 0.18$$

## References

**Question From:** Session 7 > Reading 27 > LOS d

### Related Material:

- Key Concepts by LOS

## Question #11 of 92

Question ID: 414362

Which of the following ratios would *least likely* measure liquidity?

- ☐ A) Quick ratio.
- ☐ B) Current ratio.
- ☒ C) Return on assets (ROA).

### Explanation

ROA = (EBIT / average total assets) which measures management's ability and efficiency in using the firm's assets to generate operating profits. Other ratios that measure liquidity (if a company can pay its current bills) besides the quick, cash, and current ratios are the: receivables turnover, inventory turnover, and payables turnover ratios.

## References

**Question From:** Session 7 > Reading 27 > LOS b

### Related Material:

- Key Concepts by LOS

## Question #12 of 92

Question ID: 414379

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?

- |   | <u>Current Ratio</u> | <u>Quick Ratio</u> | <u>Cash Ratio</u> |
|---|----------------------|--------------------|-------------------|
| <input checked="" type="radio"/> A) 1.1 | 0.8                  | 0.6                |                   |
| <input type="radio"/> B) 1.1            | 0.6                  | 0.8                |                   |

X **C)** 0.8                      0.6                      1.1

#### 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 =  $(0.4 + 2.0) / 4.0 = 0.6$ .

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS

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### Question #13 of 92

Question ID: 414386

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?

	<u>Debt to Equity</u>	<u>Working Capital</u>
✓ <b>A)</b>	0.78	\$500
X <b>B)</b>	1.22	\$500
X <b>C)</b>	0.78	\$250

#### 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 =  $2,000(0.25) = \$500$

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS

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### Question #14 of 92

Question ID: 414368



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

<u>Income Statement</u>	<u>%</u>		
Sales	100.0		
Cost of goods sold	58.2		
Operating expenses	30.2		
Interest expense	0.7		
Income tax	<u>5.7</u>		
Net income	5.2		
<u>Balance sheet</u>	<u>%</u>		<u>%</u>
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	<u>30.9</u>	Common equity	<u>48.0</u>
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.

	<u>Current ratio</u>	<u>Return on equity</u>
✓ <b>A)</b> 2.4		26.8%
X <b>B)</b> 2.4		26.4%
X <b>C)</b> 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).

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS

## **Question #15 of 92**

Question ID: 414409

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

Accounts payable	5.0
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turnover

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.

- X **A)** \$57.8 million.
- ✓ **B)** \$58.4 million.
- X **C)** \$52.3 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].

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS

## Question #16 of 92

Question ID: 434284

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

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

### Liabilities and Equity

Accounts Payable	4,651	5,140
Wages Payable	2,984	2,890
Dividends Payable	<u>100</u>	<u>100</u>
Total current liabilities	7,735	8,130

Long term Debt	1,346	7,388
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Common Stock	4,000	4,000
Retained Earnings	<u>4,354</u>	<u>1,000</u>
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
X <b>A)</b> 1.48	0.86
X <b>B)</b> 1.59	1.59
✓ <b>C)</b> 1.59	0.86

### 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

### References

**Question From:** Session 7 > Reading 27 > LOS b

### **Related Material:**

- Key Concepts by LOS

## **Question #17 of 92**

Question ID: 414395

Are the quick ratio and the debt-to-capital ratio used primarily to assess a company's ability to meet short-term obligations?

<u>Quick ratio</u>	<u>Debt-to-capital ratio</u>
X <b>A)</b> No	Yes
✓ <b>B)</b> Yes	No
X <b>C)</b> Yes	Yes

### 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.

### References

**Question From:** Session 7 > Reading 27 > LOS b

**Related Material:**

- Key Concepts by LOS

## Question #18 of 92

Question ID: 460645

Regarding the use of financial ratios in the analysis of a firm's financial statements, it is *most accurate* to say that:

- ☐ A) variations in accounting treatments have little effect on financial ratios.
- ☒ B) a range of target values for a ratio may be more appropriate than a single target value.
- ☐ C) many financial ratios are useful in isolation.

### Explanation

Determining a target value for a ratio is difficult, so a range of values may be more appropriate. Financial ratios are not useful when viewed in isolation and are only valid when compared to historical figures or peers. Comparing ratios between firms can be complicated by variations in accounting treatments used at each firm.

### References

**Question From:** Session 7 > Reading 27 > LOS a

**Related Material:**

- Key Concepts by LOS

## Question #19 of 92

Question ID: 414405

Given the following information about a company:

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

What are the average receivables collection period, the average payables payment period, and the average inventory processing period respectively?

<u>Average Receivables</u> <u>Collection Period</u>	<u>Average Payables</u> <u>Payment Period</u>	<u>Average Inventory</u> <u>Processing Period</u>
<input checked="" type="radio"/> A) 37	30	46
<input type="radio"/> B) 37	30	52
<input type="radio"/> C) 37	45	46

### Explanation

Average receivables collection period =  $(365 / 10) = 36.5$  or 37

Average payables payment period =  $(365 / 12) = 30.4$  or 30

Average inventory processing period =  $(365 / 8) = 45.6$  or 46

## References

**Question From:** Session 7 > Reading 27 > LOS b

### Related Material:

- Key Concepts by LOS

## Question #20 of 92

Question ID: 414361

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).

## References

**Question From:** Session 7 > Reading 27 > LOS b

### Related Material:

- Key Concepts by LOS

## Question #21 of 92

Question ID: 414370

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) \$900,000.
- ☐ B) \$300,000.
- ☒ C) \$1,200,000.

### 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.

#### References

**Question From:** Session 7 > Reading 27 > LOS b

**Related Material:**

- Key Concepts by LOS

## Question #22 of 92

Question ID: 414418

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

	<i>E Company</i>	<i>G Company</i>
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 one-third of G Company's.
- X **B)** lower than G Company's because its interest coverage ratio is at least three times G Company's.
- X **C)** 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.

#### 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.

## References

**Question From:** Session 7 > Reading 27 > LOS c

**Related Material:**

- Key Concepts by LOS
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### Question #23 of 92

Question ID: 414417

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 =  $365 / \text{receivables turnover}$ , 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.

## References

**Question From:** Session 7 > Reading 27 > LOS c

**Related Material:**

- Key Concepts by LOS
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### Question #24 of 92

Question ID: 652913

Statement #1 - As compared to the price-to-earnings ratio, the price-to-cash flow ratio is easier to manipulate because management can easily control the timing of the cash flows.

Statement #2 - A firm with earnings per share of \$2 is more profitable than a firm with earnings per share of \$1.

With respect to these statements:

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

## Explanation

Although manipulation of cash flow can occur, the P/E ratio is easier to manipulate because earnings are based on the numerous estimates and judgments of accrual accounting. EPS does not facilitate direct comparisons of profitability. Two firms may have the same amount of earnings but their number of shares outstanding may differ significantly.

## References

**Question From:** Session 7 > Reading 27 > LOS e

**Related Material:**

- Key Concepts by LOS

## Question #25 of 92

Question ID: 414439

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)** \$8.8 million.
- ✗ **B)** \$8.0 million.
- ✗ **C)** \$22.0 million.

### Explanation

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

### References

**Question From:** Session 7 > Reading 27 > LOS g

### **Related Material:**

- Key Concepts by LOS

## Question #26 of 92

Question ID: 414416

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)** Return on equity has improved.
- ✗ **B)** Gross profit margin has improved.
- ✗ **C)** Leverage has declined.

### 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  $ROA \times \text{financial leverage}$ . Financial leverage (assets / equity) can be derived by adding 1 to the debt-to-equity ratio. In 2005, ROE was 23.4% [ $7.2\% ROA \times (1 + 2.25 \text{ debt-to-equity})$ ]. In 2007, ROE was 27.6% [ $5.9\% ROA \times (1 + 3.68 \text{ debt-to-equity})$ ].

#### References

**Question From:** Session 7 > Reading 27 > LOS c

#### **Related Material:**

- Key Concepts by LOS

## Question #27 of 92

Question ID: 414387

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.
- X **B)** sum of the time it takes to sell inventory and the time it takes to collect accounts receivable.
- X **C)** length of time it takes to sell inventory.

#### Explanation

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

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS

## Question #28 of 92

Question ID: 414396

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	<u>1100</u>
Gross Profit	400
SG&A	150
Operating Profit	250
Interest Expense	25
Taxes	<u>75</u>
Net Income	150

What is the inventory turnover ratio?

- X **A)** 1.59.
- X **B)** 0.77.
- ✓ **C)** 1.29.

#### Explanation

Inventory turnover =  $1,100(\text{COGS}) / 850(\text{inventory}) = 1.29$

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS

## Question #29 of 92

Question ID: 414354

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:

- X **A)** both are incorrect.
- X **B)** both are correct.
- ✓ **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.

#### References

**Question From:** Session 7 > Reading 27 > LOS a

**Related Material:**

- Key Concepts by LOS

## Question #30 of 92

Question ID: 414436

A firm's financial statements reflect the following:

EBIT	\$2,000,000
Sales	\$16,000,000
Interest expense	\$900,000
Total assets	\$12,300,000
Equity	\$7,000,000
Effective tax rate	35%
Dividend payout rate	28%

Based on this information, what is the firm's sustainable growth rate?

- ✓ **A)** 7.35%.
- X **B)** 10.63%.
- X **C)** 8.82%.

#### Explanation

$ROE = \text{tax burden} \times \text{interest burden} \times \text{EBIT margin} \times \text{asset turnover} \times \text{financial leverage}$

$\text{tax burden} = \text{net income}/\text{EBT}$

$\text{EBT} = \text{EBIT} - I = 2,000,000 - 900,000 = 1,100,000$

$\text{net income} = (\text{EBT})(1-t) = (1,100,000)(1 - 0.35) = 715,000$

$\text{tax burden} = 715,000/1,100,000 = 0.65$

$\text{interest burden} = \text{EBT}/\text{EBIT} = 1,100,000/2,000,000 = 0.55$

$\text{EBIT margin} = \text{EBIT}/\text{revenue} = 2,000,000/16,000,000 = 0.125$

$\text{asset turnover} = \text{revenue}/\text{total assets} = 16,000,000/12,300,000 = 1.301$

$\text{financial leverage} = \text{total assets}/\text{total equity} = 12,300,000/7,000,000 = 1.757$

$ROE = 0.65 \times 0.55 \times 0.125 \times 1.301 \times 1.757 = 0.1021$

*Alternatively,*  $ROE = [(\text{EBIT} - I)(1-t)]/\text{equity} = [(2,000,000 - 900,000)(1 - 0.35)]/7,000,000 = 0.1021$

Sustainable growth = ROE (1 - dividend payout rate) =  $0.1021 \times 0.72 = 7.35\%$ .

#### References

**Question From:** Session 7 > Reading 27 > LOS e

**Related Material:**

- Key Concepts by LOS

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## Question #31 of 92

Question ID: 414372

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*:

- X **A)** 37 days.
- ✓ **B)** 79 days.
- X **C)** 30 days.

#### Explanation

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

Receivables days =  $365 / \text{receivables turnover} = 365 / 10 = 36.5$  days.

Inventory processing days =  $365 / \text{inventory turnover} = 365 / 5 = 73.0$  days.

Payables payment period =  $365 / \text{payables turnover} = 365 / 12 = 30.4$  days.

Cash collection cycle =  $36.5 + 73.0 - 30.4 = 79.1$  days.

#### References

**Question From:** Session 7 > Reading 27 > LOS b

**Related Material:**

- Key Concepts by LOS

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## Question #32 of 92

Question ID: 414378

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	<u>500</u>	<u>550</u>
Total CA	1300	1660
Plant, prop. equip	<u>1000</u>	<u>1250</u>
Total Assets	2600	2910
<i>Liabilities</i>		
Accounts Payable	500	550
Long term debt	<u>700</u>	<u>700</u>
Total liabilities	1200	1652

### Equity

Common Stock	400	400
Retained Earnings	<u>1260</u>	<u>1260</u>
Total Liabilities & Equity	2600	2910

### Income Statement

Sales	3000
Cost of Goods Sold	<u>(1000)</u>
Gross Profit	2000
SG&A	500
Interest Expense	<u>151</u>
EBT	1349
Taxes (30%)	<u>405</u>
Net Income	944

What is the operating profit margin?

- ✓ **A)** 0.50.
- ✗ **B)** 0.67.
- ✗ **C)** 0.45.

### Explanation

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

### References

**Question From:** Session 7 > Reading 27 > LOS b

### Related Material:

- Key Concepts by LOS

## Question #33 of 92

Question ID: 414404

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 = CGS / Inventory = \$650,000 / \$450,000 = 1.4444

Average Inventory Processing Period = 365 / 1.4444 = 252.7 days

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS
- 

### **Question #34 of 92**

Question ID: 414388

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

- |                  |      |
|------------------|------|
| ✓ <b>A)</b> 7.67 | 0.30 |
| X <b>B)</b> 0.57 | 0.56 |
| X <b>C)</b> 2.63 | 0.30 |

#### Explanation

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

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

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS
- 

### **Question #35 of 92**

Question ID: 414413

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	<u>500</u>	<u>550</u>
Total CA	1300	1660
Plant, prop. equip	<u>1000</u>	<u>1580</u>
Total Assets	2600	3240
Liabilities		
Accounts Payable	500	550
Long term debt	<u>700</u>	<u>1052</u>
Total liabilities	1200	1602
Equity		
Common Stock	400	538
Retained Earnings	<u>1000</u>	<u>1100</u>
Total Liabilities & Equity	2600	3240

### Income Statement

Sales	3000
Cost of Goods Sold	<u>(1000)</u>
Gross Profit	2000
SG&A	500
Interest Expense	<u>151</u>
EBT	1349
Taxes (30%)	<u>405</u>
Net Income	944

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

✓ **A)** 0.62.

X **B)** 0.29.

X **C)** 1.83.

### Explanation

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

If using the traditional DuPont,  $ROE = (NI / \text{Sales}) \times (\text{Sales} / \text{Assets}) \times (\text{Assets} / \text{Equity})$ :

$$ROE = (944 / 3,000) \times (3,000 / 2,920) \times (2,920 / 1,519) = 0.622$$

The 5-part Dupont formula gives the same result:

$$ROE = (\text{net income} / \text{EBT})(\text{EBT} / \text{EBIT})(\text{EBIT} / \text{revenue})(\text{revenue} / \text{total assets})(\text{total assets} / \text{total equity})$$

$$\text{Where EBIT} = \text{EBT} + \text{interest} = 1,349 + 151 = 1,500$$

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

### References

**Question From:** Session 7 > Reading 27 > LOS c

**Related Material:**

- Key Concepts by LOS

## Question #36 of 92

Question ID: 414427

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

	<i>Beginning Figures</i>	<i>Ending Figures</i>	<i>Average Figures</i>
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

- X **A)** 1.25                      20.8%
- X **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%

### References

**Question From:** Session 7 > Reading 27 > LOS d

**Related Material:**

- Key Concepts by LOS

## Question #37 of 92

Question ID: 414398

>An analyst has gathered the following data about a company:

- Average receivables collection period of 95 days.
- Average inventory processing period of 183 days.



- A payables payment period of 274 days.

What is their cash conversion cycle?

- ✓ **A)** 4 days.
- X **B)** 186 days.
- X **C)** -4 days.

#### Explanation

Cash conversion cycle = average receivables collection period + average inventory processing period - payables payment period  
= 95 + 183 - 274 = 4 days

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS

## Question #38 of 92

Question ID: 414353

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

- X **A)** Statement #1    Statement #2
- X **B)** Statement #2    Statement #3
- ✓ **C)** Statement #2    Statement #1

#### 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.

#### References

**Question From:** Session 7 > Reading 27 > LOS a

#### **Related Material:**

- Key Concepts by LOS

## Question #39 of 92

Question ID: 414420

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)** \$40,000.
- X **B)** \$360,000.
- X **C)** \$36,000.

### Explanation

The traditional DuPont system is given as:

$$\text{ROE} = (\text{net profit margin})(\text{asset turnover})(\text{leverage ratio})$$

Solving for the net profit margin yields:

$$0.12 = (\text{net profit margin}) \times (2) \times (1.5)$$

$$0.04 = (\text{net profit margin})$$

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:

$$0.04 = \text{net income} / \text{revenue} = \text{net income} / \$1,000,000$$

$$\$40,000 = \text{net income}.$$

### References

**Question From:** Session 7 > Reading 27 > LOS d

**Related Material:**

- Key Concepts by LOS
- 

## Question #40 of 92

Question ID: 414431

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

- ✓ **A)** Debt to total capital.
- X **B)** Equity multiplier.
- X **C)** Asset turnover.

### 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.

### References

**Question From:** Session 7 > Reading 27 > LOS d

**Related Material:**

- Key Concepts by LOS
-

## Question #41 of 92

Question ID: 414357

Common size income statements express all income statement items as a percentage of:

- X **A)** net income.
- ✓ **B)** sales.
- X **C)** assets.

### Explanation

Common size income statements express all income statement items as a percentage of sales. Note that common size balance sheets express all balance sheet accounts as a percentage of total assets.

### References

**Question From:** Session 7 > Reading 27 > LOS a

### **Related Material:**

- Key Concepts by LOS

## Question #42 of 92

Question ID: 414415

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:

- X **A)** 82 days.
- ✓ **B)** 86 days.
- X **C)** 46 days.

### Explanation

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

## References

**Question From:** Session 7 > Reading 27 > LOS c

### Related Material:

- Key Concepts by LOS

## Question #43 of 92

Question ID: 414407

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	<u>(150)</u>
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	<u>1100</u>
Gross Profit	400
SG&A	150
Operating Profit	250
Interest Expense	25
Taxes	<u>75</u>
Net Income	150

What is the receivables turnover ratio?

- X **A)** 0.5.
- X **B)** 1.0.
- ✓ **C)** 2.0.

## Explanation

Receivables turnover =  $1,500(\text{sales}) / 750(\text{receivables}) = 2.0$

## References

**Question From:** Session 7 > Reading 27 > LOS b

**Related Material:**

- Key Concepts by LOS
- 

## Question #44 of 92

Question ID: 414440

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

X **A)** Description #3                      Description #1

X **B)** Description #2                      Description #3

✓ **C)** Description #3                      Description #2

### 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.

### References

**Question From:** Session 7 > Reading 27 > LOS g

**Related Material:**

- Key Concepts by LOS
- 

## Question #45 of 92

Question ID: 414428

With other variables remaining constant, if profit margin rises, ROE will:

X **A)** fall.

✓ **B)** increase.

X **C)** remain the same.

### Explanation

The DuPont equation shows clearly that ROE will increase as profit margin increases, as long as asset turn and leverage do not fall.

### References

Related Material:

- Key Concepts by LOS

Question #46 of 92

Question ID: 414401

An analyst has collected the following data about a firm:

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

What is the average receivables collection period, the average inventory processing period, and the average payables payment period? (assume 360 days in a year)

	<u>Receivables</u>	<u>Inventory</u>	<u>Payables</u>
	<u>Collection Period</u>	<u>Processing Period</u>	<u>Payment Period</u>
✓ A)	36 days	45 days	30 days
X B)	45 days	36 days	30 days
X C)	30 days	30 days	60 days

Explanation

Receivables collection period =  $360 / 10 = 36$  days

Inventory processing period =  $360 / 8 = 45$  days

Payables payment period =  $360 / 12 = 30$  days

References

Question From: Session 7 > Reading 27 > LOS b

Related Material:

- Key Concepts by LOS

Question #47 of 92

Question ID: 414356

Ratio analysis is most useful for comparing companies:

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

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.

## References

**Question From:** Session 7 > Reading 27 > LOS a

### Related Material:

- Key Concepts by LOS

## Question #48 of 92

Question ID: 414355

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

- X **A)** It is difficult to find comparable industry ratios.
- X **B)** Determining the target or comparison value for a ratio is difficult.
- ✓ **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.

## References

**Question From:** Session 7 > Reading 27 > LOS a

### Related Material:

- Key Concepts by LOS

## Question #49 of 92

Question ID: 414367

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	<u>1100</u>
Gross Profit	400
SG&A	150
Operating Profit	250
Interest Expense	25
Taxes	<u>75</u>
Net Income	150

What is the current ratio?

- ✓ **A)** 4.65.
- X **B)** 2.67.
- X **C)** 0.22.

### Explanation

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

### References

**Question From:** Session 7 > Reading 27 > LOS b

### **Related Material:**

- Key Concepts by LOS

## Question #50 of 92

Question ID: 414435

A firm's financial statements reflect the following:

Net profit margin	15%
Sales	\$10,000,000
Interest payments	\$1,200,000
Avg. assets	\$15,000,000
Equity	\$11,000,000
Avg. working capital	\$800,000
Dividend payout rate	35%

Which of the following is the *closest* estimate of the firm's sustainable growth rate?



- ☐ A) 10%.
- ☐ B) 8%.
- ☒ C) 9%.

#### Explanation

Return on equity (ROE) = net profit margin × asset turnover × leverage = (0.15)(0.67)(1.364) = 0.137.

The sustainable growth = (1 - dividend rate)(ROE) = (0.65)(0.137) = 8.9%.

#### References

**Question From:** Session 7 > Reading 27 > LOS e

#### **Related Material:**

- Key Concepts by LOS

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### Question #51 of 92

Question ID: 414432

Would an increase in net profit margin or in the firm's dividend payout ratio increase a firm's sustainable growth rate?

<u>Net profit margin</u>	<u>Dividend payout ratio</u>
<input type="radio"/> A) Yes	Yes
<input type="radio"/> B) No	No
<input checked="" type="radio"/> C) Yes	No

#### Explanation

The sustainable growth rate is equal to ROE multiplied by the retention rate. According to the Dupont formula, an increase in net profit margin will result in higher ROE. Thus, an increase in net profit margin will result in a higher growth rate. The retention rate is equal to 1 minus the dividend payout ratio. Thus, an increase in the dividend payout ratio will lower the retention rate and lower the growth rate.

#### References

**Question From:** Session 7 > Reading 27 > LOS e

#### **Related Material:**

- Key Concepts by LOS

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### Question #52 of 92

Question ID: 414421

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

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

### Explanation

One of the many ways ROE can be expressed is:  $ROE = \text{net income} / \text{equity}$

$$0.12 = \$10,000,000 / \text{equity}$$

$$\text{Equity} = \$10,000,000 / 0.12 = \$83,333,333$$

### References

**Question From:** Session 7 > Reading 27 > LOS d

### **Related Material:**

- Key Concepts by LOS

## Question #53 of 92

Question ID: 414423

The traditional DuPont equation shows ROE equal to:

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

### Explanation

Profit margin  $\times$  asset turnover  $\times$  financial leverage. Although  $\text{net income/assets} \times \text{sales/equity} \times \text{assets/sales}$  also yields ROE, it is not the DuPont equation.

### References

**Question From:** Session 7 > Reading 27 > LOS d

### **Related Material:**

- Key Concepts by LOS

## Question #54 of 92

Question ID: 414364

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	<u>500</u>	<u>550</u>
Total CA	1300	1660
Plant, prop. equip	<u>1000</u>	<u>1250</u>
Total Assets	2600	2910
<i>Liabilities</i>		
Accounts Payable	500	550

Long term debt	<u>700</u>	<u>1102</u>
<i>Total liabilities</i>	1200	1652
<i>Equity</i>		
Common Stock	400	538
Retained Earnings	<u>1000</u>	<u>720</u>
<i>Total Liabilities &amp; Equity</i>	2600	2,910

### *Income Statement*

Sales	3000
Cost of Goods Sold	<u>(1000)</u>
Gross Profit	2000
SG&A	500
Interest Expense	<u>151</u>
EBT	1349
Taxes (30%)	<u>405</u>
Net Income	944

What is the gross profit margin?

- ☐ A) 0.472.
- ☐ B) 0.333.
- ☒ C) 0.666.

#### Explanation

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

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS

## Question #55 of 92

Question ID: 414376

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) 4 times.
- ☐ B) 3 times.
- ☐ C) 1 time.

#### Explanation

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

## References

**Question From:** Session 7 > Reading 27 > LOS b

### **Related Material:**

- Key Concepts by LOS
- 

## **Question #56 of 92**

Question ID: 414380

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)** 56 days.
- ☐ **B)** Not enough information is given.
- ☒ **C)** 26 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 =  $18 + 23 - 15 = 26$

## References

**Question From:** Session 7 > Reading 27 > LOS b

### **Related Material:**

- Key Concepts by LOS
- 

## **Question #57 of 92**

Question ID: 414400

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?

<u>Revenue / Average</u> <u>working capital</u>	<u>Average total assets /</u> <u>Average total equity</u>
--	--

- |   |                 |
|---|-----------------|
| <input checked="" type="radio"/> <b>A)</b> Activity ratio | Solvency ratio  |
| <input type="radio"/> <b>B)</b> Activity ratio            | Liquidity ratio |
| <input type="radio"/> <b>C)</b> Profitability ratio       | Solvency 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.

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS
- 

### **Question #58 of 92**

Question ID: 414425

If a firm has a net profit margin of 0.05, an asset turnover of 1.465, and a leverage ratio of 1.66, what is the firm's ROE?

- ☐ A) 5.87%.
- ☒ B) 12.16%.
- ☐ C) 3.18%.

#### Explanation

One of the many ways to express  $ROE = \text{net profit margin} \times \text{asset turnover} \times \text{leverage ratio}$

$$ROE = (0.05)(1.465)(1.66) = 0.1216$$

#### References

**Question From:** Session 7 > Reading 27 > LOS d

#### **Related Material:**

- Key Concepts by LOS
- 

### **Question #59 of 92**

Question ID: 434285

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

$$ROE \text{ in } 20X4 \text{ was } 0.18 \times 1.75 \times 1.5 = 0.4725.$$

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

$$0.10 \times \text{asset turnover} \times 1.5 = 0.4725$$

$$\text{Asset turnover} = 3.15.$$

#### References

**Question From:** Session 7 > Reading 27 > LOS d

### Related Material:

- Key Concepts by LOS

## Question #60 of 92

Question ID: 414430

When the return on equity equation (ROE) is decomposed using the original DuPont system, what three ratios comprise the components of ROE?

- ☐ A) Gross profit margin, asset turnover, equity multiplier.
- ☒ B) Net profit margin, asset turnover, equity multiplier.
- ☐ C) Net profit margin, asset turnover, asset 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

### References

**Question From:** Session 7 > Reading 27 > LOS d

### Related Material:

- Key Concepts by LOS

## Question #61 of 92

Question ID: 414422

Using the following data, find the return on equity (ROE).

<i>Net Income</i>	<i>Total Assets</i>	<i>Sales</i>	<i>Equity</i>
\$2	\$10	\$10	\$8

- ☒ A) 25%.
- ☐ B) 20%.
- ☐ C) 100%.

### Explanation

Net Income / Equity = ROE

$2 / 8 = 25\%$

### References

**Question From:** Session 7 > Reading 27 > LOS d

Related Material:

- Key Concepts by LOS

Question #62 of 92

Question ID: 414394

The following data applies 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%.

What is the average collection period, the average inventory processing period, and the payables payment period for XTC Company?

<u>Average</u> <u>Collection Period</u>	<u>Average Inventory</u> <u>Processing Period</u>	<u>Payables</u> <u>Payments Period</u>
✓ A) 95 days	183 days	274 days
X B) 45 days	45 days	132 days
X C) 55 days	195 days	231 days

Explanation

Receivables turnover = \$1,000,000 / \$260,000 = 3.840  
Average collection period = 365 / 3.840 = 95.05 or 95 days

Inventory turnover = \$800,000 / \$400,000 = 2  
Average inventory processing period = 365 / 2 = 183 days

Payables turnover ratio = \$800,000 / \$600,000 = 1.333  
Payables payment period = 365 / 1.333 = 273.82 or 274 days

References

Question From: Session 7 > Reading 27 > LOS b

Related Material:

- Key Concepts by LOS

Question #63 of 92

Question ID: 414373

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) 50%.
- ☐ B) 18%.
- ☒ C) 30%.

#### Explanation

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

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS
- 

## Question #64 of 92

Question ID: 414363

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) Both of the ratios are profitability ratios.
- ☒ B) Only one of the ratios is a profitability ratio.
- ☐ C) Neither of the ratios is a profitability ratio.

#### 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.

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS
- 

## Question #65 of 92

Question ID: 414383



Using a 365-day year, if a firm has net annual sales of \$250,000 and average receivables of \$150,000, what is its *average* collection period?

- ✓ **A)** 219.0 days.
- X **B)** 1.7 days.
- X **C)** 46.5 days.

#### Explanation

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

Collection period = 365 / 1.66667 = 219 days

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS

## **Question #66 of 92**

Question ID: 768883

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	<u>500</u>	<u>550</u>
Total CA	1600	1660
Plant, prop. equip	<u>1000</u>	<u>1250</u>
Total Assets	2600	2910
<i>Liabilities</i>		
Accounts Payable	500	550
Long term debt	<u>700</u>	<u>1102</u>
Total liabilities	1200	1652
<i>Equity</i>		
Common Stock	400	538
Retained Earnings	<u>1000</u>	<u>720</u>
Total Liabilities & Equity	2600	2910

### *Income Statement*

Sales	3000
Cost of Goods Sold	<u>(1000)</u>
Gross Profit	2000
SG&A	500
Interest Expense	<u>151</u>
EBT	1349

Taxes (30%)	<u>405</u>
Net Income	944

What is the quick ratio for 2004?

- X **A)** 0.331.
- X **B)** 3.018.
- ✓ **C)** 2.018.

#### Explanation

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

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS

## Question #67 of 92

Question ID: 414402

The following footnote appeared in Crabtree Company's 20X7 annual report:

*"On December 31, 20X7, Crabtree recognized a restructuring charge of \$20 million, of which \$5 million was for severance pay for employees who will be terminated in 20X8 and \$15 million was for land that became permanently impaired in 20X7."*

Based only on these changes, Crabtree's net profit margin and fixed asset turnover ratio (using year-end financial statement values) in 20X8 as compared to 20X7 will be:

<u>Net profit margin</u>	<u>Fixed asset turnover</u>
X <b>A)</b> Lower	Higher
✓ <b>B)</b> Higher	Unchanged
X <b>C)</b> Higher	Higher

#### Explanation

The restructuring charge and asset write-down are non-recurring transactions; thus, net income will be higher in 20X8, all else equal. In 20X8, fixed asset turnover will be the same as 20X7, all else equal. The asset impairment charge is a one-time charge, so fixed assets will not be reduced further in 20X8.

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS

## Question #68 of 92

Question ID: 414397

Which of the following ratios would NOT be used to evaluate how efficiently management is utilizing the firm's assets?

- X **A)** Fixed asset turnover.
- X **B)** Payables turnover.
- ✓ **C)** Gross profit margin.

### Explanation

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

### References

**Question From:** Session 7 > Reading 27 > LOS b

### **Related Material:**

- Key Concepts by LOS

## Question #69 of 92

Question ID: 414419

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	<u>(150)</u>
Total Assets	2750

#### *Liabilities and Equity*

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

### *Income Statement*

Sales	1500
COGS	<u>1100</u>
Gross Profit	400
SG&A	150
Operating Profit	250
Interest Expense	25
Taxes	<u>75</u>
Net Income	150

What is the ROE?

- X A) 9.9%.
- ✓ B) 9.3%.
- X C) 10.7%.

Explanation

$ROE = 150(NI) / [1000(\text{common}) + 620(RE)] = 150 / 1620 = 0.0926$  or 9.3%

References

**Question From:** Session 7 > Reading 27 > LOS d

**Related Material:**

- Key Concepts by LOS

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**Question #70 of 92**

Question ID: 414384

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?

- X A) 171.64 days.
- X 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 =  $365 / \text{average receivables turnover}$  or  $365 / 10.5 = 34.76$ . The average inventory processing period =  $365 / \text{inventory turnover}$  or  $365 / 4 = 91.25$ . The payables payment period =  $365 / \text{payables turnover ratio}$  =  $365 / 8 = 45.63$ . Putting it all together: cash conversion cycle =  $34.76 + 91.25 - 45.63 = 80.38$ .

References

**Question From:** Session 7 > Reading 27 > LOS b

**Related Material:**

- Key Concepts by LOS

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**Question #71 of 92**

Question ID: 414389

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	<u>(150)</u>
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	<u>1100</u>
Gross Profit	400
SG&A	150
Operating Profit	250
Interest Expense	25
Taxes	<u>75</u>
Net Income	150

What is the receivables collection period?

- ✓ **A)** 183.
- X **B)** 365.
- X **C)** 243.

#### Explanation

Receivables turnover =  $1,500(\text{sales}) / 750(\text{receivables}) = 2.0$

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

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS

## Question #72 of 92

Question ID: 414412

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

Current ratio      Cash ratio

- X **A)** Increase      Increase
- ✓ **B)** No effect      Increase

X **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.

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS
- 

### **Question #73 of 92**

Question ID: 414375

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:

- X **A)** shortens.  
✓ **B)** lengthens.  
X **C)** may shorten or lengthen.

#### Explanation

CCC = collection period + Inv Period - Payment period.

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

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS
- 

### **Question #74 of 92**

Question ID: 485774

An analyst is examining the operating performance ratios for a company. A summary of the company's data for the three most recent fiscal years along with the industry averages are shown below:

	<u>Industry</u>	<u>20X5</u>	<u>20X4</u>	<u>20X3</u>
Return on total capital (ROTC)	24.0%	26.6%	27.3%	28.4%
Return on common equity	10.0%	12.6%	15.5%	20.2%
Return on equity (ROE)	8.0%	12.1%	14.7%	18.9%

Based on the above data, the analyst's *most appropriate* conclusion is that the trend in ROE:

- ✓ **A)** relative to ROTC implies increasing leverage and financial risk.  
X **B)** relative to the industry average reflects underperformance due to weak management.

X **C)** relative to return on common equity implies declining leverage and financial risk.

#### Explanation

Return on equity (net income / average total equity) includes both common equity and preferred equity in the denominator, but not debt. Return on total capital (EBIT / average total debt + average total equity) includes both equity and debt. An increasing spread between ROE and ROTC implies increasing debt in the capital structure, which reflects increasing leverage and financial risk.

#### References

**Question From:** Session 7 > Reading 27 > LOS e

#### **Related Material:**

- Key Concepts by LOS

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### Question #75 of 92

Question ID: 414374

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)** 9.6%.
- X **B)** 5.0%.
- X **C)** 18.0%.

#### Explanation

Net income after taxes =  $300 \times 0.18 = 54$

Equity =  $1400 \times 0.40 = 560$

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

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS

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### Question #76 of 92

Question ID: 454995

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?

- X **A)** 2.25.
- X **B)** 0.69.
- ✓ **C)** 1.44.

#### Explanation

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

$ROE = (\text{net profit margin})(\text{asset turnover})(\text{equity multiplier})$

$0.18 = (0.05)(2.5)(\text{equity multiplier})$

$0.18 \div [(0.05)(2.5)] = \text{equity multiplier}$

$0.18 \div 0.125 = \text{equity multiplier}$

$0.18 \div 0.125 = 1.44$

#### References

**Question From:** Session 7 > Reading 27 > LOS d

#### **Related Material:**

- Key Concepts by LOS
- 

### **Question #77 of 92**

Question ID: 414437

A company must report separate financial information for any segment of their business which:

- X **A)** is more than 20% of a firm's revenues.
- X **B)** is located in a country other than the firm's home country.
- ✓ **C)** accounts for more than 10% of the firm's assets and has risk and return characteristics distinguishable from the company's other lines of business.

#### Explanation

Financial statement items must be reported separately for any segment of a firm's business that is greater than 10% of revenue or assets *and* has risk and return characteristics that are distinguishable from those of the company's other lines of business. Requirements for reporting of geographic segments have the same size threshold and the segment must operate in a business environment that is different from that of the firm's other segments.

#### References

**Question From:** Session 7 > Reading 27 > LOS f

#### **Related Material:**

- Key Concepts by LOS
- 

### **Question #78 of 92**

Question ID: 414424

An analyst has gathered the following information about a company.



- The total asset turnover is 1.2.
- The after-tax profit margin is 10%.
- The financial leverage multiplier is 1.5.

Given this information, the company's return on equity is:

✓ **A)** 18%.

X **B)** 9%.

X **C)** 12%.

#### Explanation

ROE = profit margin × total asset turnover × financial leverage

ROE = (0.1)(1.2)(1.5) = 0.18 or 18.0%

#### References

**Question From:** Session 7 > Reading 27 > LOS d

#### **Related Material:**

- Key Concepts by LOS

## **Question #79 of 92**

Question ID: 414410

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?

X **A)** 2 million.

✓ **B)** 3 million.

X **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

$\$15,000,000 - \$12,000,000 = \text{receivables}$

$\$3,000,000 = \text{receivables}$

### References

**Question From:** Session 7 > Reading 27 > LOS b

**Related Material:**

- Key Concepts by LOS
- 

## Question #80 of 92

Question ID: 414414

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

### References

**Question From:** Session 7 > Reading 27 > LOS c

**Related Material:**

- Key Concepts by LOS
-

## Question #81 of 92

Question ID: 414385

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 gross profit margin and operating profit margin?

<u>Gross Profit</u>	<u>Operating Profit Margin</u>
<u>Margin</u>	
X <b>A)</b> 0.379	0.725
✓ <b>B)</b> 0.725	0.575
X <b>C)</b> 2.630	1.226

### Explanation

Gross profit margin = gross profit / net sales =  $145 / 200 = 0.725$

Operating profit margin = EBIT / net sales =  $115 / 200 = 0.575$

### References

**Question From:** Session 7 > Reading 27 > LOS b

### **Related Material:**

- Key Concepts by LOS

## Question #82 of 92

Question ID: 414369

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

- X **A)** total liabilities.
- X **B)** total assets.
- ✓ **C)** current liabilities.

### Explanation

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

### References

**Question From:** Session 7 > Reading 27 > LOS b

**Related Material:**

- Key Concepts by LOS
- 

**Question #83 of 92**

Question ID: 414366

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  $CA - CL = \text{working capital}$  ( $500 - 300 = 200$ ).

References

**Question From:** Session 7 > Reading 27 > LOS b

**Related Material:**

- Key Concepts by LOS
- 

**Question #84 of 92**

Question ID: 414390

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

- ✗ **A)** Net Profit Margin.
- ✗ **B)** Equity Turnover.
- ✓ **C)** Cash Ratio.

Explanation

Equity turnover and net profit margin are each measures of a company's operating performance.

References

**Question From:** Session 7 > Reading 27 > LOS b

**Related Material:**

- Key Concepts by LOS

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## Question #85 of 92

Question ID: 414393

An analyst has gathered the following data about a company:

- Average receivables collection period of 37 days.
- Average payables payment period of 30 days.
- Average inventory processing period of 46 days.

What is their cash conversion cycle?

- ☐ A) 45 days.
- ☒ B) 53 days.
- ☐ C) 113 days.

### Explanation

Cash conversion cycle = average receivables collection period + average inventory processing period - payables payment period  
= 37 + 46 - 30 = 53 days.

### References

**Question From:** Session 7 > Reading 27 > LOS b

### **Related Material:**

- Key Concepts by LOS
- 

## Question #86 of 92

Question ID: 414360

Which of the following is *least likely* a routinely used operating profitability ratio?

- ☐ A) Gross profit/net sales.
- ☐ B) Net income/net sales.
- ☒ C) Sales/Total Assets

### Explanation

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

### References

**Question From:** Session 7 > Reading 27 > LOS b

### **Related Material:**

- Key Concepts by LOS
- 

## Question #87 of 92

Question ID: 414434

An analysis of the industry reveals that firms have been paying out 45% of their earnings in dividends, asset turnover = 1.2; asset-to-equity (A/E) = 1.1 and profit margins are 8%. What is the industry's projected growth rate?

X **A)** 4.95%.

✓ **B)** 5.81%.

X **C)** 4.55%.

#### Explanation

$ROE = \text{profit margin} \times \text{asset turnover} \times A/E = 0.08 \times 1.2 \times 1.1 = 0.1056$

$RR = (1 - 0.45) = 0.55$

$g = ROE \times RR = 0.1056 \times 0.55 = 0.0581$

#### References

**Question From:** Session 7 > Reading 27 > LOS e

#### **Related Material:**

- Key Concepts by LOS

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## Question #88 of 92

Question ID: 414392

The *main difference* between the current ratio and the quick ratio is that the quick ratio excludes:

✓ **A)** inventory.

X **B)** assets.

X **C)** cost of goods sold.

#### Explanation

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

Quick ratio = [cash + marketable securities + receivables] / current liabilities

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS

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## Question #89 of 92

Question ID: 414438

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

Sales	100%
Cost of goods sold	<u>60%</u>
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.

- X **A)** \$150 million increase.
- ✓ **B)** \$50 million increase.
- X **C)** \$80 million increase.

#### Explanation

20X7 gross profit is equal to \$100 million ( $\$1 \times 250 \text{ million units sold} \times 40\% \text{ gross profit margin}$ ). The 10% price cut to \$0.90 will increase cost of goods sold to 67% of sales [ $\text{COGS} = 0.6(\$1) = \$0.60$ ;  $\$0.60 / \$0.90 = 67\%$ ]. As a result, gross profit will decrease to 33% of sales. If unit sales double in 20X8, gross profit will equal \$150 million ( $\$0.90 \times 500 \text{ million units} \times 33\% \text{ gross profit margin}$ ). Therefore, gross profit will increase \$50 million ( $\$150 \text{ million } 20\text{X}8 \text{ gross profit} - \$100 \text{ million } 20\text{X}7 \text{ gross profit}$ ).

#### References

**Question From:** Session 7 > Reading 27 > LOS g

#### **Related Material:**

- Key Concepts by LOS

## Question #90 of 92

Question ID: 457613

Given the following information about a firm:

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

What are the gross and operating profit margins?

<u>Gross Profit Margin</u>	<u>Operating Profit Margin</u>
✓ <b>A)</b> 40%	20%
X <b>B)</b> 40%	10%
X <b>C)</b> 20%	15%

#### Explanation

Gross profit margin =  $(\$1,000 \text{ net sales} - \$600 \text{ COGS}) / \$1,000 \text{ net sales} = 400 / 1,000 = 0.4$

Operating profit margin =  $(\$1,000 \text{ net sales} - \$600 \text{ COGS} - \$200 \text{ operating expenses}) / \$1,000 \text{ net sales} = \$200 / \$1000 = 0.2$

#### References

**Question From:** Session 7 > Reading 27 > LOS b

#### **Related Material:**

- Key Concepts by LOS

## Question #91 of 92

Question ID: 414358

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

- X **A)** common-size analysis.
- X **B)** longitudinal analysis.
- ✓ **C)** cross-sectional analysis.

Explanation

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

References

**Question From:** Session 7 > Reading 27 > LOS a

**Related Material:**

- Key Concepts by LOS
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**Question #92 of 92**

Question ID: 414382

If the inventory turnover ratio is 7, what is the average number of days the inventory is in stock?

- X **A)** 70 days.
- X **B)** 25 days.
- ✓ **C)** 52 days.

Explanation

Average Inventory Processing Period =  $365 / \text{inventory turnover} = 365 / 7 = 52$  days.

References

**Question From:** Session 7 > Reading 27 > LOS b

**Related Material:**

- Key Concepts by LOS