Level 2: Study Session 09: Equity Investments: Industry and Company Analysis 160 questions.

Introduction by the Author :
Hi there, CFA fellows, here you are. You see, it doesn't need to be an expensive prep course to get first class preparation for the CFA exams.
The following questions are original CFA AIMR questions and not just composed by prep course providers. They all come with a clear answer.
In order to understand why the questions are commented by "answer is correct / incorrect" it is important to know that all questions have automatically been responded with the first (and only the first ) answer.
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And now , here we go ...

Acme, Incorporated is a small manufacturing firm. The firm's income statement indicates a cost of goods sold amount of $\$ 150,000$. The average balance sheet shows an average accounts payable amount of $\$ 15,000$. What is Acme's average days payable outstanding?

* 30 days
* 36.5 days
* 52.7 days
* 10 days
* 28.4 days

That answer is incorrect.
Correct answer:
36.5 days

The payables turnover ratio is cost of goods sold (COGS) divided by average accounts payable. In this case $\$ 150,000 / \$ 15,000=10.0$. To convert this into average days payable outstanding, divide 365 by 10.0. $365 / 10.0=36.5$ days.

There are several factors that influence an industry's pricing patterns. Which factor is described as a firm's ability to differentiate its product over varying market segments, and thus charge different prices?

* Product segmentation
* Price volatility of key supply inputs
* Industry concentration
* Ease of industry entry

That answer is correct!

There are several factors that influence an industry's pricing practices including product segmentation, industry concentration, ease of entry, and price volatility of key inputs. Product segmentation refers to a firm's ability to differentiate its product across varying market segments, and charging differential prices.

A cross sectional analysis is one where:

* The firm's ratios are tested to see if they meet certain econometric thresholds
* A firm's ratios are standardized which is completed by dividing them into either total assets or total sales
* A firm's ratios are compared against an average of all firms in the economy
* A firm's ratios are compared to its own ratios from previous periods
* A firm's ratios are compared to other firms in the industry

That answer is incorrect.
Correct answer:
A firm's ratios are compared to other firms in the industry

A time series analysis is completed by contrasting a firm's ratios with its own historical ratios.
Cross sectional analysis is when the ratios of similar firms are compared.

Industries typically go through life cycle phases. Which of the following phases is characterized by a period when a product or service is established? During this period the industry growth may be faster than the economy in general and the proper execution of a strategy will lead to accelerating sales and earnings.

* Decline phase
* Pioneer phase
* Maturity phase
* Growth phase

That answer is incorrect.
Correct answer:
Growth phase

The four typical phases that an industry will go through include the pioneer phase, growth phase, mature phase, and decline phase. During the growth phase, proper execution of a well-conceived strategy will lead to accelerating sales and earnings. Industry growth during this period may be faster than the economy as a whole and growth companies in the industry may prosper in all stages of the business cycle.

Return on equity equals:

* (Net profit margin)(Total asset turnover)(Financial leverage multiplier)(1+tax rate)
* (Net profit margin)(Total asset turnover)(Interest expense rate)(1-tax rate)
* (Net profit margin)(Total asset turnover)(Interest expense rate)
* [(Operating profit margin)(Total asset turnover)-(Interest expense rate)](Financial leverage multiplier)(Tax retention rate)
* (Net profit margin)(Total asset turnover)(Financial leverage multiplier)(1-tax rate)

That answer is incorrect.
Correct answer:
[(Operating profit margin)(Total asset turnover)-(Interest expense rate)](Financial leverage multiplier)(Tax retention rate)

The 5 component duPont analysis is: [(Operating profit margin)(Total asset turnover)(Interest expense rate)](Financial leverage multiplier)(Tax retention rate).

The quick ratio for Acme Inc., is 1.3 times. If inventory is purchased with cash the quick ratio will change if which of the following manners?

* Not enough information
* Remain unchanged
* Increase
* Decrease

That answer is incorrect.
Correct answer:
Decrease

The quick ratio equals cash, marketable securities, plus receivables divided by current liabilities. Since cash is included in the quick ratio while inventory is not, the purchase of inventory with cash will decrease the quick ratio.

Consider the following information for firm ABC:

Net sales = \$8,365
Cost of goods sold $=\$ 4,225$
SG \& A expenses $=\$ 2,550$
Net income = \$435

Calculate this firm's net profit margin.

* 49.49\%
* 19.01\%
* 80.99\%
* $5.2 \%$
* 50.51\%

That answer is incorrect.
Correct answer:

Net profit margin $=$ Net income/Net sales $=435 / 8,365=5.2 \%$

Which of the following would not be an advantage to using price-to-book value (PBV) multiples in stock valuation?
I. PBV is usually a stable and relatively easy measure of value compared to discounted cash flow estimates.
II. Even firms with negative earnings may be valued using PBV multiples.
III. If accounting standards are reasonably consistent, PBV ratios may be used to compare similar firms for signs of over or under value.
IV. Service oriented firms without many fixed assets are prime candidates for PBV ratio analysis.

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* I only
* III only
* Il only
* All of these answers
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* IV only
*I, II, and III
That answer is incorrect.
Correct answer:
IV only

Using PBV multiple analysis has several advantages. PBV multiple analysis is considered to be a stable, intuitive, and relatively simple method of valuation in comparison to discounted cash flow analysis. Another advantage is that even firms with negative cash flow may be valued using PBV multiples analysis. Additionally, given reasonably consistent accounting standards, similar firms may be compared for signs of over or under valuation. This methodology of stock valuation breaks down however if accounting standards vary significantly as well as for firms without significant fixed assets, such as service oriented firms.

Use the following information for ABC Co. to calculate current ratio:

Cash 22
Marketable securities 4
Accounts Receivable 90
Inventory 44
Net Fixed Assets194
Current Liabilities110
Long term debt106
Net Sales445
Net Income 18
Total assets previous year280

* 0.68\#AI 1.05
* 1.45
* 1.76

That answer is incorrect.
Correct answer:
1.45

The current ratio is the most well known liquidity measure. It measures the relationship between current assets and liabilities and is calculated as:
Current assets / Current liabilities.
For $A B C$ Co. the current ratio is: $(22+4+90+44) / 110=160 / 110=1.45$

Which of the following is not normally considered when estimating a company's expected profit margin?

* the company's competitive strategy
* the firm's position in the industry
* the firm's credit history
* trend's in the firm's performance

That answer is incorrect.
Correct answer:
the firm's position in the industry

Three factors should be considered when estimating a company's expected profit margin: 1. The company's competitive strategy. Is the company's strategy based on being a low cost producer or is the strategy to differentiate its products or services? 2. General trends in the firm's performance. What opportunities or problems might impact its performance in the future? 3. The company's position in its industry. Is the firm's past performance due to its industry or is it due to the firm's unique characteristics? Cash flow and credit history are used for analyzing a firm's liquidity position.

Crystal, Incorporated is an American car manufacturer with a strong presence in North America and a moderate presence in Europe. Mercado, Incorporated is a European car manufacturer with a very strong presence in Europe and a moderate presence in North America. These two companies are currently in merger discussions. It is viewed that even though they are in the same line of business, there will be some synergies and benefits of economies of scale if they merge. Which of the following would best describe this type of merger if it were completed?

* Congeneric
* Hostile
* White Knight
* Horizontal
* Conglomerate
* Vertical

That answer is incorrect.
Correct answer:
Horizontal

A horizontal merger is the merger of two firms in the same line of business. Vertical mergers involve a company merging with either a supplier or customer. Congeneric mergers are the merging of two somewhat related firms, but not a true vertical or horizontal merger. Finally, a conglomerate merger involves two firms in different industries.

Smith is an analyst who wishes to study trends of a firm's inventory levels. In order to standardize the analysis to a common-size basis, Smith should divide inventory by which of the following?

* Total Assets
* Sales
* The industry average
* Net Income

That answer is correct!

Common sized statements normalize the balance sheet and income statement, which allows the analyst to compare firms of different sizes. A common sized balance sheet expresses the various accounts as a percentage of total assets while a common sized income statement states items as a percentage of sales.

Use the following information for ABC Co. to calculate asset turnover.

Cash 22
Marketable securities 4
Accounts Receivable 90
Inventory 44
Net Fixed Assets194
Current Liabilities110
Long term debt106
Net Sales445
COGS370
Net Income 18
Total assets previous year280

* 1.26
* 1.5
* 1.40
* 2.29

That answer is incorrect.
Correct answer:
1.40

Total Asset Turnover indicates how effectively the company uses its assets to generate sales, and is computed as: Net sales / Average total assets. ABC's total assets are 354 (22 + $4+90+44+194)$.
ABC Co.'s total asset turnover is $445 /((354+280) / 2)=1.40$.
Exceedingly high values may imply too few assets for the potential business or that the company is using mostly outdated, fully depreciated assets. Too low values may indicate that the firm is tying up more assets than needed to generate its sales level - that is, the firm is not efficiently utilizing the assets at its disposal to generate sales.

Acme, Incorporated is a small manufacturing firm. The firm's income statement indicates a cost of goods sold amount of $\$ 100,000$. The average balance sheet shows an average accounts payable amount of $\$ 15,000$. What is Acme's average days payable outstanding?

* 55 days
* 7 days
* 30 days
* 52 days
* 28 days

That answer is correct!

The payables turnover ratio is cost of goods sold (COGS) divided by average accounts payable. In this case $\$ 100,000 / \$ 15,000=6.67$. To convert this into average days payable outstanding, divide 365 by $6.67 .365 / 6.67=54.7$ days.

How would you expect a firm's P/E ratio to change if the payout ratio were to decrease?

* The P/E would increase.
* The P/E would decrease.
* The P/E ratio is independent of the payout ratio.
* The P/E would remain constant.

That answer is incorrect.
Correct answer:
The P/E would decrease.

We can rewrite the P/E ratio as (payout x (1 + growth rate of dividends)) / (required rate of return - growth rate of dividends). Thus as the payout decreases, so does the Price / Earnings ratio.

Ink, Inc. has a net profit margin of $8 \%$, total asset turnover of 1.5 , and a financial leverage multiplier of 1.4. What is the ROE?

* 4\%
* $8 \%$
* $26 \%$
* $4.8 \%$
* $1.26 \%$
* 16.8\%
* Unknown, additional information required

That answer is incorrect.
Correct answer:
16.8\%

The 3 component DuPont Analysis indicates that ROE = (Net profit margin)(Total asset turnover)(Financial leverage multiplier).

Which of the following is not considered to be a disadvantage to using price-to-book value (PBV) multiples in stock valuation?
I. Book values are sensitive to accounting decisions on depreciation and other variables.
II. If accounting standards vary significantly, useful comparison across firms becomes difficult.
III. Service oriented firms without many fixed assets may not have meaningful PBV multiples.
IV. Firms with negative earnings can be valued using PBV multiple analysis.

* III only
* All of these answers
* IV only
*I, II, and III
* II only
* I only

That answer is incorrect.
Correct answer:
IV only

Book values, like earnings are sensitive to accounting standards and decisions. As such, this sensitivity would be considered a disadvantage to using PBV ratio analysis for stock valuation. Additionally, service oriented firms as well as other companies without significant fixed assets may not have meaningful PBV multiples. Firms that have negative earnings actually may be valued using PBV multiples, which is an advantage to using the methodology. If the earnings are significant enough however, the book value of equity may actually become negative which in turn may lead to a negative PBV multiple. The possibility of negative PBV ratios is considered to be a disadvantage of using PBV multiple valuation.

How would you expect a firm's P/S (price/sales) multiple to change if the profit margin increased?

[^0]That answer is incorrect.
Correct answer:
The P/S would increase.

We can rewrite the P/S multiple as: (profit margin x payout ratio $\times(1+$ growth rate))/ (required rate of return $x$ growth rate). Thus as profit margin increases, so will the P/S (price / sales) multiple.

How would you expect a firm's P/E ratio to change if the overall level of interest rates decreased?

* The P/E would decrease.
* The P/E would remain constant.
* The P/E ratio is independent of the level of interest rates.
* The P/E would increase.

That answer is incorrect.
Correct answer:
The P/E would increase.

We can rewrite the P/E ratio as (payout x (1 + growth rate of dividends)) / (required rate of return - growth rate of dividends). If the overall level of interest rates were to decrease, the required rate of return will also decrease. This in turn will lead to a higher P/E ratio.

In which of the following performance measures does the analyst calculate the expected value of new and profitable business opportunities by subtracting the P/E ratio from a company's ongoing operations from the firm's observed P/E ratio. The concept behind this evaluation is to establish whether a firm is investing in projects that provide excess NPV, or in other words projects that generate rates of return above its WACC?

[^1]* Economic Value Added (EVA)
* CAMEL Ratings
* Franchise Factor

That answer is incorrect.
Correct answer:
Franchise Factor

Franchise P/E = Observed P/E - Base P/E. The Franchise Factor is a measure of a firm's unique competitive advantage that makes it possible for the firm to earn excess returns (rates of return above the cost of capital) on its capital projects. In turn, these excess returns and the franchise factor cause the firm's stock price to have a P/E ratio above its base P/E ratio that is equal to $1 / k$.

How would you expect a firm's P/E ratio to change if the company's risk level were to increase?

* The P/E is independent of the company's risk level.
* The P/E would remain constant.
* The P/E would decrease.
* The P/E would increase.

That answer is incorrect.
Correct answer:
The P/E would decrease.

We can rewrite the P/E ratio as (payout x ( $1+$ growth rate of dividends)) / (required rate of return - growth rate of dividends). If a company's risk level were to increase, the required rate of return would also increase, resulting in a higher denominator. This in turn would lead to a lower P/E ratio.

A firm that has above-average investment opportunities that foster a higher rate of sales and earnings growth is known as which of the following?

* A value company
* A growth company
* A cyclical company
* A defensive company
* A new economy company
* An old economy company

That answer is incorrect.
Correct answer:
A growth company

A growth firm is a company that has above-average investment opportunities that foster above average sales and earnings growth. A growth stock is one that at some point in the past has been under valued relative to its risk.

Consider the following information that relates to Company ABC (a stable firm):

Required return on equity $15 \%$
Profit margin 7.5\% (Based on expected earnings)
Payout ratio 25\%
Growth rate of dividends 5\%

Calculate the PS (Price to Sales) ratio for this firm.
*. 1875

* . 056
* 6.7
* . 500
*. 67
* 1.49
* 5

That answer is correct!

The PS ratio for a stable firm may be calculated with the formula: $\mathrm{PS}=($ Profit Margin x Payout Ratio)/(Required return on equity - Growth Rate on Dividends) $=(.075 \times .25) /(.15-$ $.05)=.1875$

Use the Capital Asset Pricing Model to calculate the cost of equity for a company with a beta of 1.10. The risk free rate is $5.75 \%$, and the expected return on the market benchmark index is $12.25 \%$.

* 12.025\%
* 12.90\%
* $11.755 \%$
* 12.338\%
* 12.063\%

That answer is incorrect.
Correct answer:
12.90\%

The cost of equity $=$ Risk Free Rate + (Beta $\times$ Market Risk Premium). In this case $5.75 \%+$ $(1.10 \times(12.25 \%-5.75 \%))=12.90 \%$.

How would you expect a firm's P/S (price/sales) multiple to change if the company's payout ratio were to increase?

* The P/S multiple moves independently of the firm's growth rate.
* The P/S would remain constant.
* The P/S would increase.
* The P/S would decrease.

That answer is incorrect.
Correct answer:
The P/S would increase.

We can rewrite the P/S multiple as: (profit margin $x$ payout ratio $\times(1+$ growth rate))/ (required rate of return $x$ growth rate). Thus as a company's payout ratio increases, so does the P/S (price/sales) multiple.

You have obtained the following information from Acme's balance sheet:

Cash = \$10 million
Accounts receivable $=\$ 90$ million
Inventory = \$100 million
Current liabilities $=\$ 135$ million

What is Acme's current ratio?

* 6.75
* 1.48
* 3.35
* 2.0
* 13.5
* 0.675

That answer is incorrect.
Correct answer:
1.48

The current ratio is current assets divided by current liabilities (CA / CL). In this case the current ratio $=\$ 200$ million $/ \$ 135$ million $=1.48$.

Under what condition(s) will the value using the Free Cash Flow to Equity (FCFE) method be the same as the Dividend Discount Model (DDM) when valuing an equity security?

1. When dividends and FCFE are equal.
2. When dividends are more than FCFE.
3. When dividends are less than FCFE.
4. When dividends are less than FCFE and excess cash is invested in projects with a net present value of zero.
5. When dividends are less than FCFE and excess cash is invested in projects that have a positive net present value.

* 5 only
* 1 only
* 1 and 4
* 3 only
* 2 and 5
* 2 only

That answer is incorrect.
Correct answer:
1 and 4

The Free Cash Flow to Equity and Dividend Discount Model will indicate similar values when dividends and FCFE are the same or when dividends are less than FCFE and the excess cash is invested in projects with a net present value of zero.

In which stage of an industry's life cycle would the pressure to diversify become great?

* Mature phase
* Decline phase
* Growth phase
* Pioneer phase

That answer is incorrect.
Correct answer:
Decline phase

In the decline phase demand for industry products steadily declines. Defending market share in a shrinking market becomes costly. Declining sales force companies to fail or consolidate.

When analyzing the quality of a firm's financial statements, which of the following will typically lead to a higher quality earnings?
I. Earnings that are repeatable
II. Earnings reported by conservative accounting principles
III. The absence of significant nonrecurring items
IV. Earnings that are close to cash

* II only
* All of these
* \| \& II
* I only
*I, II \& IV
* II, III \& IV

That answer is incorrect.
Correct answer:
All of these

A high quality income statement will include earnings that are repeatable. This results from sales to customers who are expected to do repeat business as opposed to potentially nonrecurring items such as price reductions or unexpected exchange rate fluctuations. Other one-time items such as accounting changes or mergers reduces the quality of the earnings. Additionally, the closer the earnings are to cash the higher the quality of those earnings. A firm that collects payments from a sale over an extended period of time but realizes all of the revenue immediately detracts from the quality of its income statement.

Consider the following information that relates to Company XYZ (a stable firm):

Payout ratio 25\%
ROE 15\%
Required rate of return on equity $11 \%$
Growth rate of dividends 5\%

Calculate the PBV (Price to Book Value) ratio for this firm.

* 67
* 24.0
* 1.67
* 16.7
* 25.0
* 2.5

That answer is incorrect.
Correct answer:
1.67

The PBV ratio for a stable firm may be calculated as: PBV = (ROE - Dividend growth rate)/(Required rate of return on equity - Dividend growth rate) $=(.15-.05) /(.11-.05)=$ 1.67.

Consider the following information for firm ABC:

Net sales = \$8,365
Cost of goods sold $=\$ 4,225$
SG \& A expenses $=\$ 2,550$
Net income $=\$ 435$

Calculate this firm's operating profit margin.

* 50.51\%
* 19.01\%
* 49.49\%
* $5.2 \%$
* 80.99\%

That answer is incorrect.

Correct answer:
19.01\%

Operating profit margin = Operating profit/Net sales $=$ (Net sales - Cost of goods sold - SG \& A expenses)/Net sales $=(8,365-4,225-2,550) / 8,365=19.01 \%$

Industries typically go through life cycle phases. Which phase is characterized by a time in which the growth of the industry is similar to the growth of the economy as a whole? Overall results for the industry will be average even if there are a few growth firms present.

* Maturity phase
* Pioneer phase
* Decline phase
* Growth phase

That answer is correct!

During the mature phase of an industry's life cycle, above average growth must come from increased market share or acquisitions. The performance of the industry as a whole will correspond to the economy, and results for the industry will be average.

What do a firm's internal liquidity measures show?

* The ability of the firm to meet its current obligations.
* The profitability of the firm.
* The return on capital employed.
* How well the company is operating the business.

That answer is correct!

Internal liquidity ratios show the company's ability to meet its current obligations. In other words, evaluating a firm's liquidity is looking at its ability to pay its bills when they are due, meet operating expenses, and have enough cash on hand to meet unexpected obligations. As with most ratios, the usefulness of the following ratios comes from comparing a
company's ratios to industry ratios and to prior period ratios.

Consider the following information for Firm XYZ:

Beginning equity $=\$ 551.1$
Ending equity $=\$ 445.8$
Gross sales = \$18,567
Net sales = \$5,955.0
Preferred dividend = \$4.0

Calculate this company's Equity Turnover.

* 37.24
* 39.49
* 16.45
* 11.95
* 8.08
* 33.69

That answer is incorrect.
Correct answer:
11.95

Equity turnover $=$ Net sales $/$ Average equity $=5,955.0 /[(551.1+445.8) / 2]=11.95$.

Consider the following information for Company ABC:

Net income = \$340.1
Interest expense = \$98.6
Average total capital $=\$ 2,929.6$
Average common equity $=\$ 445.8$

Calculate this firm's return on total capital ratio for the period.

* 22.12\%
* $10.08 \%$
* 14.97\%
* 11.61\%
* 13.0\%
* 6.32\%

That answer is incorrect.
Correct answer:
14.97\%

Return on total capital relates the firm's earnings to all the capital involved in the enterprise.
The ratio is calculated as follows: Return on total capital = (Net income + Interest expense) /
Average total capital. In this case return on total capital $=(340.1+98.6) / 2,929.6=14.97$

Internal liquidity ratios may be utilized when analyzing and comparing a firm with other companies within the same industry. Which of the following represents the average receivables collection period?

* COGS/Accounts payable
* Inventory/COGS
* 365/Receivables turnover
* COGS/Inventory
* Sales/Receivables

That answer is incorrect.
Correct answer:
365/Receivables turnover

Sales/receivables gives you the receivables turnover ratio. The average receivables collection period is then derived by dividing the number of days in the year (365) by the receivables turnover ratio (Sales/receivables).

A company's sustainable growth rate may be calculated in which of the following ways?

* (retention rate) x (ROE)
* (Payout ratio) x (1-tax rate)
* (ROE) x (EBIT)
* (leverage ratio) $\times$ (1-tax rate)

That answer is correct!

The sustainable growth rate is a function of the rate of return on equity and the retention rate. Thus sustainable growth (g) may be calculated by multiplying the retention rate by return on equity (ROE).

Return on equity (ROE) equals which of the following?

* (net sales) x (asset turnover ratio) x (efficiency ratio)
* (net profit margin) x (total sales) x (financial leverage multiplier)
* (net profit margin) x (total asset turnover) x (financial leverage multiplier)
* (net profit margin) x (total sales) x (1-tax rate)

That answer is incorrect.
Correct answer:
(net profit margin) $\times$ (total asset turnover) $\times$ (financial leverage multiplier)

By working through the Dupont Analysis we know that ROE = (net profit margin) $\times$ (total asset turnover) x (financial leverage multiplier).

You have obtained the following information from Acme's balance sheet:

Cash = \$10 million
Accounts receivable $=\$ 120$ million

Inventory = \$100 million
Accounts payable $=\$ 135$ million

What will happen to the firm's quick ratio if Acme sells $\$ 50$ million of inventory on credit?

* The quick ratio will increase only if FIFO is used.
* The quick ratio will remain unchanged.
* The quick ratio will increase.
* The quick ratio will increase only if LIFO is used.
* The effect upon the quick ratio of this transaction is unknown.

That answer is incorrect.
Correct answer:
The quick ratio will increase.

The quick ratio is defined as cash and accounts receivable divided by accounts payable (QR $=(C+A R) / A P)$. If inventory is turned into accounts receivable, the quick ratio will increase.

Consider the following information that relates to Company ABC (a stable firm):

Required return on equity $15 \%$
Profit margin 1.5\% (Based on expected earnings)
Payout ratio 25\%
Growth rate of dividends 5\%

Calculate the PS (Price to Sales) ratio for this firm.

* 67
* 5
* 1.49
*. 0375
*. 500
* 6.7

That answer is incorrect.
Correct answer:

The PS ratio for a stable firm may be calculated with the formula: $\mathrm{PS}=($ Profit Margin x Payout Ratio)/(Required return on equity - Growth Rate on Dividends) $=(.015 \times .25) /(.15-$ $.05)=.0375$

You have obtained the following information from Acme's financial statements:

Average cash = \$10 million
Average accounts receivable $=\$ 120$ million
Average inventory $=\$ 120$ million
Average accounts payable $=\$ 135$ million
Cost of goods sold $=\$ 500$ million
Acme uses FIFO accounting.

What was Acme's inventory turnover?

* 1.2 times
* 6 times
* 4.2 times
* 5 times
* 12 times
* 60 times

That answer is incorrect.
Correct answer:
4.2 times

Inventory turnover is calculated as cost of goods sold divided by average inventory or in this case $\$ 500 / \$ 120=4.2$.

Which of the following are examples of disadvantages to using price-to-book value (PBV) multiples in stock valuation?
I. Book values are sensitive to accounting decisions on depreciation and other variables.
II. If accounting standards vary significantly, useful comparison across firms becomes difficult.
III. Service oriented firms without many fixed assets may not have meaningful PBV multiples.
IV. The book value of equity may become negative if a firm experiences significant negative earnings, leading to a negative PBV multiple.

* IV only
*I, II, and III
* II only
* III only
* All of these answers
* I only

That answer is incorrect.
Correct answer:
All of these answers

All of these answers are considered to be disadvantages of using PBV ratio analysis. Book values, like earnings are sensitive to accounting standards and decisions. Additionally, service oriented firms as well as other companies without significant fixed assets may not have meaningful PBV multiples. Finally, if a firm experiences a string of negative earnings, the book value of equity may actually become negative which in turn may lead to a negative PBV ratio.

Acme, Incorporated is a small manufacturing firm. The firm's quick ratio is currently 1.2. Which of the following best describes what will happen to the firm's quick ratio if they purchase inventory for cash?

* The quick ratio will increase.
* The quick ratio will not change.
* The quick ratio will increase only if LIFO is used.
* The quick ratio will increase only if FIFO is used.
* The quick ratio will decrease.

That answer is incorrect.
Correct answer:
The quick ratio will decrease.

The quick ratio is defined as cash and accounts receivable divided by accounts payable [QR $=(C+A R) / A P]$. Thus if cash goes down while the other ratio components remain constant, the quick ratio will decline.

Limitations of the Two-Stage Dividend Discount Model (DDM) include:

1. Difficulty in defining the length of high growth.
2. The model assumes that when high growth ends, the firm immediately enters a period of stable growth.
3. There are problems associated with comparing historical beta and assumed beta.
4. Valuations using the model are sensitive to assumptions about the stable growth period of the firm.

* There are no limitations associated with the Two-Stage DDM.
* 1,2 \& 3
* All of these
* 1,2 \& 4
* 1 \& 2
* 3 \& 4

That answer is incorrect.

Correct answer:

Problems associated with the Two-Stage DDM include difficulty in defining the length of the high growth period, the assumption that a firm immediately goes from high growth to stable growth, and sensitivity to assumptions concerning the stable growth period. The Two-Stage DDM adds flexibility over the Gordon Model in the sense that it values a firm that is currently experiencing high growth but is expected to experience stable growth at some time in the future. It is less flexible than the H Model or the Three-Stage DDM however. The H model assumes that a firm that is currently experiencing high growth will see that growth slow down over a period of time until it enters a phase of stable growth. The Three-Stage DDM assumes that a company experiencing high growth can maintain that growth for some time before entering a period of slowing growth and finally stable growth phase.

Last year Acme, Inc., had sales of $\$ 100,000$, cost of goods sold of $\$ 80,000$, and an average inventory level of $\$ 40,000$. What was Acme's inventory turnover ratio?

* 1.25
* 0.5
* 0.4
* 2.0

That answer is incorrect.
Correct answer:
2.0

Inventory turnover equals cost of goods sold (COGS) divided by inventory. In this case inventory turnover $=\$ 80,000 / \$ 40,000=2$.

In which of the following performance measures does the analyst calculate how the market has evaluated the firm's performance in terms of the market value of debt and market value of equity compared to the capital invested in the firm?

* Franchise Factor
* Economic Value Added (EVA)
* CAMEL Ratings
* Market Value Added (MVA)
* P/E Ratio Analysis

That answer is incorrect.
Correct answer:
Market Value Added (MVA)

Market Value Added (MVA) = Market Value of the Firm - Capital - Market Value of Debt Market Value of Equity. MVA is a measure of external performance in the sense that it analyzes how the firm has been treated by the market, and as such the calculations may be impacted by interest rates and general economic conditions.

Consider the following information for firm XYZ:

Net sales $=\$ 6,365$
Cost of goods sold $=\$ 3,874$
Operating profit $=\$ 385$
Net income $=\$ 188$

Calculate this firm's net profit margin

* 39.14\%
* $6.05 \%$
* 60.86\%
* 51.86\%
* 2.95\%

That answer is incorrect.
Correct answer:
2.95\%

Net profit margin $=$ Net income/Net sales $=\$ 188 / \$ 6,365=2.95 \%$

You have obtained the following information from Acme's financial statements:

Average cash = \$10 million
Average accounts receivable $=\$ 120$ million
Average inventory = \$120 million
Average accounts payable $=\$ 135$ million
Cost of goods sold $=\$ 600$ million
Acme uses LIFO accounting.

What was Acme's inventory turnover?

* 6 times
* 12 times
* 1.2 times
* 60 times
* 5 times

That answer is incorrect.
Correct answer:
5 times

Inventory turnover is calculated as cost of goods sold divided by average inventory or in this case $\$ 600 / \$ 120=5$.

Ink, Inc. has a net profit margin of $6 \%$, total asset turnover of 1.5 , a P/E ratio of 15, and a financial leverage multiplier of 1.4. What is the firm's ROE?

* 12.6\%
* $1.26 \%$
* 4\%
* 4.8\%
* Unknown, additional information required
* 8\%
* 26\%

That answer is correct!

The 3 component DuPont Analysis indicates that ROE = (Net profit margin)(Total asset turnover)(Financial leverage multiplier).

Ink, Inc has a ROE of $10 \%$. John Brown, the CEO of Ink, has stated "Ink has always paid $25 \%$ of its earnings out in dividends and always will." Estimate the firm's sustainable growth rate.

* $15 \%$
* 5\%
* 7.5\%
* $30 \%$
* $-5 \%$
* 10\%

That answer is incorrect.
Correct answer:
7.5\%

A firms sustainable growth rate may be estimated by multiplying ROE by the retention ratio. In this case the sustainable growth rate $=10 \% \times(1-$ payout rate $)=7.5 \%$.

Which of the following is/are generic strategies for achieving superior performance?

* Focus
* Cost leadership
* Differentiation
* All of these answers are correct

That answer is incorrect.
Correct answer:
All of these answers are correct

Three generic strategies for achieving superior performance are: cost leadership, differentiation, and focus.

Consider the following information for firm ABC:

Net sales = \$8,365
Cost of goods sold $=\$ 4,225$
SG + A expenses $=\$ 2,550$
Net income $=\$ 435$

Calculate this firm's gross profit margin.

* 49.49\%
* 80.99\%
* $50.51 \%$
* $5.2 \%$
* 19.01\%

That answer is correct!

Gross profit margin $=$ Gross profit/Net sales $=($ Net sales - Cost of goods sold)/Net sales $=$ $(8,365-4,225) / 8,365=4,140 / 8,365=49.49 \%$.

In which generic strategy does the firm seek to be unique in its industry while offering some characteristic that is widely valued by buyers?

* Competitive pricing
* Focus
* Cost leadership
* Differentiation

That answer is incorrect.
Correct answer:
Differentiation

In a differentiation strategy, a firm seeks to be unique in its industry while offering some characteristic that is widely valued by buyers. It selects one or more attributes widely sought and positions itself to fill those demands in a unique manner. This allows the firm to charge a premium price for this distinctiveness. A firm that can attain and maintain differentiation, as well as sustain its product's price above the marginal cost of differentiation, will be an aboveaverage performer. A differentiator that ignores its cost position will have the benefit of its premium prices nullified by its inferior cost position. A differentiator strives for cost parity or proximity by reducing costs in areas unrelated to the differentiation effort. A firm's product or service must truly be unique, or at least be perceived as being unique, if it is to expect a premium price. In contrast to cost leadership, which is unique in an industry, there can be multiple successful differentiation strategies if there are a number of product attributes that are widely valued by buyers.

Which of the following may be used to estimating a company's terminal value?
I. Liquidation value
II. Book value
III. Warranted price-to-earnings multiple
IV. No-growth perpetuity
V. Perpetual growth

* III only
* All of these answers
* V only
* I only
* IV only

> * Il only

That answer is incorrect.
Correct answer:
All of these answers

All of these answers are considered to be alternatives to calculating a company's terminal vale. Liquidation value is highly relevant when liquidation at the end of the forecast period is likely. Book value is popular among accountants and typically yields a conservative terminal value. Warranted Price-to-Earnings multiple is implemented by multiplying the target firm's estimated earnings to common stock at the end of the forecast horizon by a "warranted" price-to-earnings ratio. In a no growth situation, terminal value may be calculated by dividing free cash flow in the first period beyond the forecast horizon by the target's weighted-average cost of capital, thus giving a No-Growth Perpetuity terminal value. Finally, the Perpetual Growth alternative is obtained by dividing Free cash flow for the first period beyond the forecast horizon by the difference between the discount rate and growth rate.

Acme, Incorporated is a small manufacturing firm. The firm's quick ratio is currently 0.8. Which of the following best describes what will happen to the firm's quick ratio if they purchase inventory for cash?

* The quick ratio will not change.
* The quick ratio will decrease.
* The quick ratio will increase only if FIFO is used.
* The quick ratio will increase.
* The quick ratio will increase only if LIFO is used.

That answer is incorrect.
Correct answer:
The quick ratio will decrease.

The quick ratio is defined as cash and accounts receivable divided by accounts payable [QR $=(C+A R) / A P]$. Thus if cash goes down while the other ratio components remain constant, the quick ratio will decline.

How would you expect a firm's P/S (price/sales) multiple to change if the company's growth rate were to increase?

* The P/S would decrease.
* The P/S would increase.
* The P/S multiple moves independently of the firm's growth rate.
* The P/S would remain constant.

That answer is incorrect.
Correct answer:
The P/S would increase.

We can rewrite the P/S multiple as: (profit margin x payout ratio $\times(1+$ growth rate))/ (required rate of return $x$ growth rate). Thus as a company's growth rate increases, so does the P/S (price/sales) multiple.

How would you expect a firm's P/S (price/sales) multiple to change if the company's growth rate were to decrease?

* The P/S would remain constant.
* The P/S multiple moves independently of the firm's growth rate.
* The P/S would increase.
* The P/S would decrease.

That answer is incorrect.
Correct answer:
The P/S would decrease.

We can rewrite the P/S multiple as: (profit margin x payout ratio $\times(1+$ growth rate) $)$ / (required rate of return $x$ growth rate). Thus as a company's growth rate decreases, so does the P/S (price/sales) multiple.

Use the Capital Asset Pricing Model to calculate the cost of equity for a company with a beta of 1.05 . The Treasury Bond Rate (Risk Free Rate) is $6.25 \%$, and the Market Risk Premium is 5.5\%.

* 12.800\%
* 12.338\%
* 12.025\%
* 11.755\%
* 12.063\%

That answer is incorrect.
Correct answer:
12.025\%

The cost of equity $=$ Risk Free Rate + (Beta $\times$ Market Risk Premium). In this case $6.25 \%+$ $(1.05 \times 5.5 \%)=12.025 \%$.

Consider the following information that relates to Company ABC (a stable firm):

ROE 15\%
Required rate of return on equity $11.08 \%$
Growth rate of dividends 6\%

Calculate the PBV (Price to Book Value) ratio for this firm.

* 22.0
* 16.7
* 67
* 25.0
* 1.33
* 1.77

That answer is incorrect.

Correct answer:

### 1.77

The PBV ratio for a stable firm may be calculated as: PBV = (ROE - Dividend growth rate)/(Required rate of return on equity - Dividend growth rate) $=(.15-.06) /(.1108-.06)=$ 1.77.

How would you expect a firm's P/S (price/sales) multiple to change if the company's risk were to decrease?

* The P/S would decrease.
* The P/S multiple moves independently of the firm's risk.
* The P/S would remain constant.
* The P/S would increase.

That answer is incorrect.
Correct answer:
The P/S would increase.

We can rewrite the P/S multiple as: (profit margin $x$ payout ratio $\times(1+$ growth rate))/ (required rate of return $x$ growth rate). As a company's risk decreases, the required rate of return will also decrease. This in turn will lead to a high P/S (price/sales) multiple.

Which of the following is/are variation(s) of the price-to-book (PBV) model?
I. Tobin's Q
II. Estep's T
III. Price-sum-squared
IV. Maslow's hierarchy

* All of these
* I only
* III only
* IV only
* II only
* \| \& II

That answer is incorrect.
Correct answer:
I \& II

Tobin's Q provides an alternative to the price/book value. It relates the market value of the firm to the replacement value of the assets in place. This may provide a superior measure of undervalue in such cases as when inflation has pushed up the price of assets or where technology has reduced the price of assets significantly. Estep's T is another variant of the PBV ratio model. It takes into account three variables including return on equity, growth, and PBV ratios.

Currently ABC corp.'s stock is trading at $\$ 22$ per share. The company just paid a dividend of $\$ 1.00$, which is expected to grow at $10 \%$ annually. What rate of return are investors expecting?

* 4.55\%
* 14.55\%
* 15.00\%
* 5.00\%

That answer is incorrect.
Correct answer:
15.00\%

The Dividend Discount Model (DDM) can be rewritten as: required rate of return = (dividend at time one/ current market price) + dividend growth rate. Thus, the required rate of return $=$ $((1.00$ * 1.1)) / 22.00$)+.10=.15$ or $15 \%$.

You have obtained the following information from Acme's balance sheet:

Cash = \$10 million
Accounts receivable $=\$ 90$ million
Inventory = \$100 million
Accounts payable $=\$ 100$ million
Other current liabilities $=\$ 35$ million

What is Acme's current ratio?

* 0.675
* 2.0
* 8.57
* 3.35
* 1.48
* 13.5

That answer is incorrect.
Correct answer:
1.48

The current ratio is current assets divided by current liabilities (CA / CL). In this case the current ratio $=\$ 200$ million $/ \$ 135$ million $=1.48$.

Use the following information for ABC Co. to calculate gross margin \%:

Cash 22
Marketable securities 4
Accounts Receivable 90
Inventory 44
Net Fixed Assets194
Current Liabilities110
Long term debt106
Net Sales445
COGS370
Net Income 18
Total assets previous year280

* 79.15\%
* 83.15\%
* 16.85\%
* 4.04\%

That answer is incorrect.
Correct answer:
16.85\%

Gross profit as a percent of sales is an indicator of the cost structure of the company. Analyzing trends in this ratio, along with comparable industry figures, indicates the company's cost/price position. The calculation is as follows:
Gross profit / net sales or (Net Sales - COGS) / Net Sales $=(445-370) / 445=16.85 \%$.

Which of the following represents the volatility of income stemming from a firm's industry?

* Business risk
* Financial risk
* Operating leverage
* Financial leverage

That answer is correct!

Business risk represents the volatility of income stemming from a firm's industry. Specifically, business risk causes variability in a firm's operating income over time. The cause of this variability is changes in sales and production costs.

Business Risk is measured by the variability of the firm's operating income over time in terms of coefficient of variation of the historical operating earnings.

Consider the following information for Firm XYZ:

Net income = \$340.1
Interest expense $=\$ 117.0$
Preferred dividend = \$4.0
Average common equity = \$498.45

Calculate this company's return on owner's equity for the period.

* $67.43 \%$
* 91.7\%
* 0.8\%
* 44.76
* $68.23 \%$

That answer is correct!

The return on owner's equity is concerned with the common shareholder's return and is calculated as follows: Return on owner's equity $=$ (Net income - Preferred dividend) / Average common equity $=(340.1-4.0) / 498.45=67.43 \%$.

Which of the following factors should be included in an industry analysis model?

* External factor review and international competition.
* Supply and demand analysis.
* All of these factors may be included in an industry analysis.
* Industry classification and profitability analysis.

That answer is incorrect.
Correct answer:
All of these factors may be included in an industry analysis.

All of the mentioned factors should be considered in an industry analysis model. First, an industry may be classified by its product or services, how it reacts to the business cycle, or by its life phase. The external factor review should examine the effect of forces such as technology, government, social changes, demographics, and foreign influences. Demand and supply analysis is very important to the industry analysis model. Finally, profitability and pricing practices as well as global competition should be considered.

When dividing net income by net sales (Net income/Net sales), an analyst is able to calculate which profitability ratio?

* Return on owner's equity
* Gross profit margin
* Net profit margin
* Operating profit margin
* Total asset turnover

That answer is incorrect.
Correct answer:
Net profit margin

Net profit margin $=$ Net income/Net sales. Net profit margin relates net income to sales.

You have obtained the following information from Acme's balance sheet:

Cash = \$10 million
Accounts receivable $=\$ 120$ million
Inventory = \$100 million
Accounts payable $=\$ 135$ million

What will happen to the firm's quick ratio if Acme sells $\$ 50$ million of inventory for cash?

* The quick ratio will remain unchanged.
* The quick ratio will increase only if LIFO is used.
* The effect upon the quick ratio of this transaction is unknown.
* The quick ratio will increase only if FIFO is used.
* The quick ratio will increase.

That answer is incorrect.
Correct answer:
The quick ratio will increase.

The quick ratio is defined as cash and accounts receivable divided by accounts payable (QR $=(C+A R) / A P)$. If inventory is turned into cash, the quick ratio will increase.

Stock (equity) investors typically expect the following cash flows:
A. Dividend payments
B. Proxy rights
C. Interest payments
D. Selling price at the end of the holding period

* A and C
*A and D
* A, C, and D
* B and C
* All of these answers

That answer is incorrect.
Correct answer:
A and D

Stock investors will typically expect cash flows from dividends and the selling price at the end of the holding period. While stock investors enjoy many benefits of ownership, including the right to vote proxies, there are no direct cash flows associated with these proxy rights. Also, interest payments are typically associated with debt type securities such as bonds as opposed to stocks (equities).

How would you expect a firm's P/E ratio to change if the overall level of interest rates increased?

* The P/E would remain constant.
* The P/E is independent of the level of interest rates.
* The P/E would increase.
* The P/E would decrease.

That answer is incorrect.
Correct answer:
The P/E would decrease.

We can rewrite the P/E ratio as (payout x (1 + growth rate of dividends)) / (required rate of return - growth rate of dividends). If the overall level of interest rates were to increase, the required rate of return will also increase. This in turn will lead to a lower P/E ratio.

ABC, Inc. has sales of $\$ 2,000$, costs of goods sold of $\$ 800$, pre-interest expense $\$ 600$, and interest expense of $\$ 400$. What is the firm's interest coverage ratio?

```
* 5
* 7
* 1
* 1.5
* 2
* 3
```

That answer is incorrect.
Correct answer:

## 1.5

The interest coverage ratio = Operating profit / Interest expense = EBIT / Interest expense. In this case the interest coverage ratio $=(\$ 2,000-\$ 800-\$ 600) / \$ 400=1.5$.

The Dividend Discount Model (DDM) best suited to value a firm growing at a steady rate that is comparable or lower than the nominal growth rate of the economy and has a well established, stable dividend policy is:

* The Gordon Growth Model
* The Two-Stage Model
* The Three-Stage DDM
* The H Model
* None of these answers is correct

That answer is correct!

The Gordon Growth Model is best suited for valuing firms experiencing a steady growth rate that is equal to or less than the nominal growth rate of the economy and have a well established, stable dividend policy. The Two-Stage Model is best suited for firms that are experiencing high growth and are expected to continue this trend for a specific time, after which the reasons for the high growth disappear. The H Model is a two-stage model that assumes the initial high growth stage declines linearly to a point of steady growth. The Three-Stage DDM assumes that a firm will have an initial period of high growth, then a transitional period when growth slows down, and a final period of steady growth.

You have obtained the following information from Acme's balance sheet:

Cash = \$10 million
Accounts receivable $=\$ 120$ million
Inventory = \$100 million
Accounts payable $=\$ 135$ million

What will happen to the firm's current ratio if Acme sells $\$ 50$ million of inventory on credit?

* The current ratio will increase only if FIFO is used.
* The current ratio will increase only if LIFO is used.
* The current ratio will increase.
* The effect upon the current ratio of this transaction is unknown.
* The current ratio will remain unchanged.

That answer is incorrect.
Correct answer:
The current ratio will remain unchanged.

The current ratio is defined as current assets divided by current liabilities. Since both inventory and accounts receivable are current assets, the current ratio will remain unchanged by this transaction.

Consider the following information for Company ABC:

Net income = \$188.0
Interest expense $=\$ 117.0$
Total capital $($ time period 0$)=\$ 3,043.3$
Total capital (time period 1 ) $=\$ 4,826.9$
Average common equity $=\$ 445.8$

Calculate this firm's return on total capital ratio for the period.

* 7.75\%
* 7.19\%
* $3.89 \%$
* $6.32 \%$
* 4.78\%
* $6.18 \%$

That answer is correct!

Return on total capital relates the firm's earnings to all the capital involved in the enterprise. The ratio is calculated as follows: Return on total capital = (Net income + Interest expense) / Average total capital. In this case return on total capital $=(188.0+117.0) /((3,043.3+$ $4,826.9) / 2$ ) $=7.75$.

You are considering the purchase of Acme Corporation stock. Earnings for Acme were $\$ 0.952$ last year. You feel that earnings and dividend growth will be $32 \%$ for the next two years and $13 \%$ thereafter. Calculate the value per share of Acme using the two-stage dividend discount model. Assume a $30 \%$ dividend payout ratio and a $14 \%$ required rate of return.

* \$45.12
* \$43.98
* $\$ 76.31$
* \$32.00

That answer is incorrect.
Correct answer:
\$43.98

The two-stage dividend discount model indicates that the value of the stock equals the PV of dividends during the high growth stage plus the PV of terminal price. In this case, the value of Acme stock $=P V$ year 1 dividend + PV year 2 dividend + PV terminal price. The year 1 dividend $=0.952$ * .30 * $1.32=0.377$ (present value $=.3307$ ). Year 2 dividend $=0.377$ * 1.32 $=0.4976$ (present value $=.3829$ ). The PV terminal price $=(($ Year three dividend $/$ (required rate of return - actual growth rate)) divided by $(1+$ required rate of return squared $)=(0.5623$ $/(0.14-0.13)) / 1.2996=43.2672$. Thus the value of Acme stock using the two-stage dividend discount model is $0.3307+0.3829+43.2672=\$ 43.98$.

Ink, Inc has a ROE of $15 \%$ and a dividend payout policy of $20 \%$ of earnings. Estimate the firm's sustainable growth rate.

* 35\%
* $-5 \%$
* $3.5 \%$
* 5\%
* $15 \%$
* 12\%

That answer is incorrect.
Correct answer:
12\%

A firms sustainable growth rate may be estimated by multiplying ROE by the retention ratio. In this case the sustainable growth rate $=15 \% \times(1-$ payout rate $)=12 \%$.

Consider the following information for Firm XYZ:

Beginning equity $=\$ 445.8$
Ending equity $=\$ 1,128.8$
Gross sales = \$18,567
Net sales = \$6,365.2
Preferred dividend = \$4.0

Calculate this company's equity turnover.

* 11.95
* 23.58
* 16.45
* 39.49
* 8.08

That answer is incorrect.
Correct answer:
8.08

Equity turnover $=$ Net sales $/$ Average equity $=6,365.2 /[(445.8+1,128.8) / 2]=8.08$.

When analyzing the quality of a firm's financial statements, which of the following will typically lead to a higher quality earnings?
I. Earnings that are repeatable
II. Earnings reported by conservative accounting principles
III. The presence of significant nonrecurring items
IV. Earnings that are close to cash

* \| \& II
* II, III \& IV
* I only
* II only
*I, II \& IV
* All of these

That answer is incorrect.
Correct answer:
I, II \& IV

A high quality income statement will include earnings that are repeatable. This results from sales to customers who are expected to do repeat business as opposed to potentially nonrecurring items such as price reductions or unexpected exchange rate fluctuations. Additionally, the closer the earnings are to cash the higher the quality of those earnings. A firm that collects payments from a sale over an extended period of time but realizes all of the revenue immediately detracts from the quality of its income statement.

Industries typically go through life cycle phases. Which phase is characterized by a time when demand for the product or service declines and profit margins are diminished? This phase may result when technology has overtaken or tastes have shifted away from the industry.

* Pioneer phase
* Maturity phase
* Decline phase
* Growth phase

That answer is incorrect.
Correct answer:
Decline phase

The four typical phases that an industry will go through include the pioneer phase, growth phase, mature phase, and decline phase. During the decline phase profit margins are decreased and demand for the product or service shrinks. Market participants during this phase will often consolidate, try to reinvent themselves, or ultimately fail.

ABC, Incorporated produces crude oil and refines the oil into gasoline as well as other byproducts. Acme, Incorporated owns a number of retail gas stations and has a fleet of semitrucks that are used to transport gasoline to their stores. Acme buys a lot of their gasoline from ABC. These companies are currently in merger discussions. Which of the following would best describe this type of merger?

* Congeneric
* Hostile
* Conglomerate
* White Knight
* Horizontal
* Vertical

That answer is incorrect.
Correct answer:

## Vertical

A horizontal merger is the merger of two firms in the same line of business. Vertical mergers involve a company merging with either a supplier or customer. Congeneric mergers are the merging of two somewhat related firms, but not a true vertical or horizontal merger. Finally, a conglomerate merger involves two firms in different industries.

How would you expect a firm's P/S (price/sales) multiple to change if the company's risk were to increase?

* The P/S multiple moves independently of the firm's risk.
* The P/S would remain constant.
* The P/S would decrease.
* The P/S would increase.

That answer is incorrect.
Correct answer:
The P/S would decrease.

We can rewrite the P/S multiple as: (profit margin $\times$ payout ratio $\times(1+$ growth rate) $) /$ (required rate of return $x$ growth rate). As a company's risk increases, the required rate of return will also increase. This in turn will lead to a lower P/S (price/sales) multiple.

What is the primary determinant of a firm's profitability?

* Market share
* Sales growth
* Industry attractiveness
* Longevity

That answer is incorrect.
Correct answer:
Industry attractiveness

Industry attractiveness is the primary determinant of a firm's profitability. A sophisticated understanding of the rules of competition that determine an industry's attractiveness is needed to develop a viable competitive strategy. The ultimate goal of competitive strategy is to manage, and ultimately change, those rules in favor of the firm.

In which stage of an industry's life cycle is risk the greatest?

* Mature phase
* Growth phase
* Pioneer phase
* Decline phase

That answer is incorrect.
Correct answer:
Pioneer phase

In the pioneer phase product acceptance and business strategy is highly uncertain and therefore, risk is the greatest. Many failures are expected. Working capital and fixed asset investment is substantial. Expected returns are relatively high.

Ink, Inc. has a net profit margin of $8 \%$, total asset turnover of 1.5, and a financial leverage multiplier of 1.4. The firm's dividend payout policy is for $20 \%$ of earnings to be paid out in dividends. Estimate the firm's sustainable growth rate.

* $2.5 \%$
* 16.8\%
* 25\%
* 13.44\%
* 12.6\%
* $15 \%$

That answer is incorrect.
Correct answer:
13.44\%

The 3 component duPont analysis lets us calculate ROE. In this case ROE $=$ (Net profit margin)(Total asset turnover)(Financial leverage multiplier) $=8 \% \times 1.5 \times 1.4=16.8 \%$. The estimated sustainable growth $=$ ROE $x$ Retention ratio $=$ ROE $\times(1-$ payout ratio $)=16.8 \% \times$ $.8=13.44 \%$.

ABC, Incorporated is primarily an oil and gas production company. Acme, Incorporated produces oil and has a pipeline distribution system. The companies are currently in merger discussions. It is viewed that because both of these firms are somewhat related, the merging of the companies would add to efficiencies and income. This in turn would translate into added shareholder value. If completed, which of the following would best describe this merger?

* Vertical
* Congeneric
* Horizontal
* Hostile
* Conglomerate
* White Knight

That answer is incorrect.
Correct answer:
Congeneric

A horizontal merger is the merger of two firms in the same line of business. Vertical mergers involve a company merging with either a supplier or customer. Congeneric mergers are the merging of two somewhat related firms, but not a true vertical or horizontal merger. Finally, a conglomerate merger involves two firms in different industries.

How would you expect a firm's P/E ratio to change if the constant growth rate of dividends were to decrease?

* The P/E would increase.
* The P/E would remain constant.
* The P/E ratio is independent of the growth rate of dividends.
* The P/E would decrease.

That answer is incorrect.
Correct answer:
The P/E would decrease.

We can rewrite the P/E ratio as (payout x (1+growth rate of dividends)) / (required rate of return - growth rate of dividends). Thus as the growth rate decreases, so does the Price / Earnings ratio.

Industries may be classified by their behavior during the business cycle. Which classification is characterized by stable performance throughout the ups and downs of the business cycle?

* Cyclical
* Growth
* Defensive
* Declining

That answer is incorrect.
Correct answer:
Defensive

The three classifications used to describe industries by their behavior during the business cycle include growth, defensive, and cyclical. A growth industry is characterized by above normal expansion in sales and revenues independent of the business cycle. A defensive industry is a stable performer during both the ups and downs of the business cycle. A cyclical industry is one in which profitability tracks along the business cycle, even to an exaggerated level.

The current ratio of a firm is 1.9 times. If some of the accounts payable are paid off from the cash account, the current ratio will change in which of the following manners?

* Remain unchanged
* Not enough information
* Increase
* Decrease

That answer is incorrect.
Correct answer:
Increase

The current ratio equals cash, accounts receivable, and inventory (i.e. total current assets) divided by accounts payable (current assets/current liabilities). In this case if cash and accounts payable decrease by the same dollar amount, then the current ratio will go up because the current ratio is greater than one. If the current ratio is equal to one then these changes would leave the current ratio unaffected. If the current ratio is less than one then will decrease given the aforementioned scenario.

When dividing operating profit by net sales (operating profit/net sales), an analyst is able to calculate which profitability ratio?

* Net profit margin
* Total asset turnover
* Operating profit margin
* Return on owner's equity
* Gross profit margin

That answer is incorrect.
Correct answer:
Operating profit margin

Operating profit margin = Operating profit/Net sales. Operating profit is gross profit minus sales, general, and administrative ( $\mathrm{SG}+\mathrm{A}$ ) expenses.

Acme Corporation paid a dividend of $\$ 4.00$ last year. Earnings and dividends are expected to grow at $5 \%$ forever. What is the value of the stock if investors require an $18 \%$ return?

* $\$ 30.77$
* \$32.31
* $\$ 23.33$
* \$22.22

That answer is incorrect.
Correct answer:
\$32.31

Acme exhibits a constant growth, thus the value of the stock may be calculated as follows: Value of stock $=($ Dividend $x(1+$ Growth rate $)) /$ (Required rate of return - growth rate), or in this case $(\$ 4.00 \times 1.05) /(18 \%-5 \%)=\$ 32.31$. This variation of the Dividend Discount Model (DDM) is known as the Gordon Growth Model and is appropriate for valuations where the growth is assumed to be perpetual and constant. The underlying formula is: Price (year zero)
= Dividend (year one) / (Required return - growth rate).

ABC, Incorporated and Acme, Incorporated are both oil and gas production companies. Currently ABC and Acme are in merger discussions. Since both companies are in the same line of business, the possible merger is viewed as a way for the firms to enjoy cost savings through certain economies of scale. If completed, this would be an example of what kind of merger?

* White Knight
* Horizontal
* Congeneric
* Vertical
* Conglomerate
* Hostile

That answer is incorrect.
Correct answer:
Horizontal

A horizontal merger is the merger of two firms in the same line of business. Vertical mergers involve a company merging with either a supplier or customer. Congeneric mergers are the merging of two somewhat related firms, but not a true vertical or horizontal merger. Finally, a conglomerate merger involves two firms in different industries.

How would you expect a firm's P/E ratio to change if the payout ratio were to increase?

* The P/E is independent of the payout ratio.
* The P/E would remain constant.
* The P/E would decrease.
* The P/E would increase.

That answer is incorrect.
Correct answer:
The P/E would increase.

We can rewrite the P/E ratio as (payout x (1 + growth rate of dividends)) / (required rate of return - growth rate of dividends). Thus as the payout increases, so does the Price / Earnings ratio.

Consider the following information for firm XYZ:

Net sales = \$6,365
Cost of goods sold $=\$ 3,874$
Operating profit $=\$ 385$
Net income = \$188

Calculate this firm's gross profit margin.

* 6.05\%
* 60.86\%
* 51.86\%
* 2.95\%
* 39.14\%

That answer is incorrect.
Correct answer:
39.14\%

Gross profit margin = Gross profit/Net sales. In this case gross profit margin = (Net sales -
Cost of goods sold)/Net sales $=(6,365-3,874) / 6,365=2,491 / 6365=39.14 \%$.

Dividends paid by firms are often different than free cash flow to equity (FCFE) for which of the following reason(s):
A. Future capital needs
B. Desire for stability
C. Tax considerations
D. Signaling perogratives

* A \& C
* A, B, \& C
* All of these answers
* B \& D
* D only

That answer is incorrect.
Correct answer:
All of these answers

Future capital needs, a desire for stability, tax considerations, and signaling prerogatives are all reasons that dividends paid are usually different than free cash flow to equity (FCFE). Firms will often not pay out all of FCFE in dividends in order to fund future capital expenditures and projects. Firms will also seek stability, and thus are reluctant to start paying dividends or change the level of existing dividends in order to avoid negative signaling.
Additionally, if dividends are taxed at a higher rate than capital gains, firms may avoid paying dividends. Finally, many firms are aware of the signaling effect that dividends have on the market and will take this into account when setting their dividend policy.

Industries may be classified by their behavior during the business cycle. Which classification is characterized by profitability that tracks the business cycle, even to an exaggerated degree?

* Cyclical
* Defensive
* Growth
* Declining

That answer is correct!

The three classifications used to describe industries by their behavior during the business cycle include growth, defensive, and cyclical. A growth industry is characterized by above normal expansion in sales and revenues independent of the business cycle. A defensive
industry is a stable performer during both the ups and downs of the business cycle. A cyclical industry is one in which profitability tracks along the business cycle, even to an exaggerated level.

Consider the following information for a company:

Free cash flow for period $0=\$ 500.000$
Free cash flow for period $10=\$ 1,000.000$
Free cash flow for period $11=\$ 1,200.000$
Discount rate $=6 \%$
Growth rate $=4 \%$
The forecast horizon is 10 years.

Calculate the terminal value of this company using the Perpetual Growth method.

* \$75,000,000
* \$10,000,000
* \$25,000,000
* \$20,000,000
* \$60,000,000
* \$50,000,000

That answer is incorrect.
Correct answer:
\$60,000,000

The Perpetual Growth alternative to calculating Terminal Value for a company involves dividing Free Cash Flow for Period 1 after the forecast horizon by the difference between the discount and growth rates. In this case Terminal Value $=\$ 1,200,000 /(6 \%-4 \%)=$ $\$ 1,200,000 / .02=\$ 60,000,000$.

Consider the following information for Company ABC:

Net income = \$340.1
Interest expense $=\$ 117.0$
Preferred dividend = \$4.0
Average common equity $=\$ 498.45$
Average total equity $=\$ 512.7$

Calculate this firm's return on total equity.

* 22.82\%
* 43.51\%
* 66.34\%
* 68.23\%
* 65.55\%

That answer is incorrect.
Correct answer:
66.34\%

Return on total equity is calculated as follows: Return on total equity $=$ Net income $/$ Average total equity $=340.1 / 512.7=66.34$.

Which of the following is not normally a product/service pricing factor?

* Price changes in key supply inputs
* Degree of industry concentration
* Demographic shifts
* EASE of industry entry.

That answer is incorrect.
Correct answer:
Demographic shifts

Factors that contribute to pricing include: 1. Product segmentation: Product segmentation in most industries results from firms developing their product lines by brand name, reputation, or service, even when the products are quite similar. 2 . The degree of industry concentration: High concentration in an industry tends to inhibit price movements, and may reflect oligopolistic or monopolistic pricing. 3. Ease of industry entry: An industry's ease of entry is a key variable in the ability of prices to adjust to supply and demand factors. Monopolies generally result in artificially high prices. 4. Price changes in key supply inputs: For industries that rely heavily on one or two inputs, price changes in those inputs affect the price and availability of the industry's products.

The mix of debt and equity financing that results in the maximum value of the firm is know as which of the following?

* Minimum equity structure
* Minimum debt structure
* Maximum debt structure
* Optimal capital structure

That answer is incorrect.
Correct answer:
Optimal capital structure

The tax advantages of debt financing at some point start to be outweighed by the disadvantages associated with a higher risk of bankruptcy or financial distress. The optimal capital structure is when the equity and debt financing are properly mixed to produce the maximum value for the firm.

A demand analysis should begin with which of the following?

* Establishing a future sales projection line for the industry by considering its industry life cycle.
* Cross-checking the sales forecast.
* Segmenting customers into submarkets.
* Analyzing buying decisions and attitudes of the industry.

That answer is correct!

Preparing an economic analysis, industry life cycle placement, and external factor review will enable the assessment of the future demand for the industry's products.
The demand analysis begins by establishing a future sales projection line for the industry by considering its industry life cycle and the external factors that could affect sales.

How would you expect a firm's P/S (price/sales) multiple to change if the profit margin decreased?

* The P/S would increase.
* The P/S multiple moves independently of the profit margin.
* The P/S would decrease.
* The P/S would remain constant.

That answer is incorrect.
Correct answer:
The P/S would decrease.

We can rewrite the P/S multiple as: (profit margin $\times$ payout ratio $\times(1+$ growth rate $)$ )/ (required rate of return $x$ growth rate). Thus as profit margin decreases, so will the $\mathrm{P} / \mathrm{S}$ (price / sales) multiple.

ABC, Inc. has sales of $\$ 2,000$, costs of goods sold of $\$ 800$, pre-interest expense $\$ 600$, and interest expense of $\$ 200$. What is the firm's interest coverage ratio?

* 7
* 5
* 1.5
* 2
* 1
* 3

That answer is incorrect.
Correct answer:
3

The interest coverage ratio = Operating profit / Interest expense = EBIT / Interest expense. In this case the interest coverage ratio $=(\$ 2,000-\$ 800-\$ 600) / \$ 200=3$.

When analyzing the quality of a firm's financial statements, which of the following will typically lead to a higher quality balance sheet?
I. Conservative use of debt
II. Assets with a market value greater than book value
III. The presence of off balance sheet liabilities

* I only
* \| \& II
* II only
* III only
* II \& III
*I, II \& III
That answer is incorrect.
Correct answer:
I \& II

The conservative use of debt typically leads to a higher quality balance sheet. This is attributed to a lower potential of financial distress and the presence of unused borrowing capacity. Assets with a greater market value than book value also indicates a higher quality balance sheet. If book value is higher than market value, the firm may have items such as out-of-date inventory, nonperforming assets, and outdated technology. Finally, the presence
of off balance sheet liabilities detracts from the quality of a firm's balance sheet. These may include joint ventures and loan guarantees to subsidiaries.

Consider the following information that relates to Company ABC (a stable firm):

Retention ratio 25\%
ROE 13\%
Required rate of return on equity $11 \%$
Growth rate of dividends 5\%

Calculate the PBV (Price to Book Value) ratio for this firm.

* 25.0
* 16.7
* 1.33
* 22.0
* 2.0
*. 67
That answer is incorrect.
Correct answer:
1.33

The PBV ratio for a stable firm may be calculated as: PBV = (ROE - Dividend growth rate)/(Required rate of return on equity - Dividend growth rate) $=(.13-.05) /(.11-.05)=$ 1.33.

Which of the following is/are considered to be limitations of financial ratio analysis?
I. Lack of consistency in accounting treatment
II. Highly diversified operations
III. Inconsistent implied results

* Il only
* I only
* \| \& II
* I \& III
*I, II \& III
* III only

That answer is incorrect.
Correct answer:
I, II \& III

There are several limitations to be aware of when using ratios for analysis. While firms may be within acceptable accounting principles, there is the potential for significant variance in accounting treatments. This may be especially true for non-U.S. firms. Additionally, firms may have widely diversified operations and no two firms are the same in terms of size and structure. This may lead to problems in deriving comparable industry ratios. Finally, implied results may not always be consistent. For example, a highly profitable firm may exhibit poor liquidity ratios. This liquidity issue may eventually be alleviated by the firm's profitability.

Internal liquidity ratios can be an important part of the analysis for a company. Which of the following defines how inventory turnover is calculated?

* 365/Receivables turnover
* COGS/Accounts payable
* Inventory/COGS
* COGS/Inventory
* Sales/Receivables

That answer is incorrect.
Correct answer:
COGS/Inventory

Dividing Cost of Goods Sold (COGS) by inventory yields the inventory turnover ratio. The payables turnover ratio is COGS divided by accounts payable, while dividing sales by receivables gives the receivables turnover ratio.

Which of the following are disadvantages of using price-to-book value (PBV) multiples in stock valuation?
I. Book values tend to be relatively stable
II. Book values may be affected by accounting standards and practices, which may vary across firms.
III. Book values may not mean much for firms without significant fixed cost (such as service firms)

* II \& III
* Il only
* I only
* III only

That answer is correct!

While each of the statements are true, the relative stability of book values is actually an advantage of using price-to-book multiples in stock valuation.

A time series analysis is one where:

* A firm's ratios are compared against an average of all firms in the economy
* A firm's ratios are compared to other firms in the industry
* The stock market is predicted by the winner of the World Series. 1.5 times if the American

League wins, and 1.7 times if the National league wins. 1.8 times if the Yankees win.

* A firm's ratios are compared to its own ratios from previous periods
* A firm's ratios are standardized which is completed by dividing them into either total assets or total sales
That answer is incorrect.
Correct answer:
A firm's ratios are compared to its own ratios from previous periods

A time series analysis is completed by contrasting a firm's ratios with its own historical ratios. Cross sectional analysis is when the ratios of similar firms are compared.

Ink, Inc. has a net profit margin of 6\%, total asset turnover of 1.5, and a financial leverage multiplier of 1.4. The firm's dividend payout policy is for $20 \%$ of earnings to be paid out in dividends. Estimate the firm's sustainable growth rate.

* 10.08\%
* 2.5\%
* 12.6\%
* 25\%
* $15 \%$
* 6\%

That answer is correct!

The 3 component duPont analysis lets us calculate ROE. In this case ROE $=$ (Net profit margin)(Total asset turnover)(Financial leverage multiplier) $=6 \% \times 1.5 \times 1.4=12.6 \%$. The estimated sustainable growth $=$ ROE $\times$ Retention ratio $=$ ROE $\times(1-$ payout ratio $)=12.6 \% \times$ $.8=10.08 \%$.

In which stage in an industry's life cycle would growth through acquisitions within the industry most likely occur?

* Pioneer phase
* Decline phase
* Mature phase


## * Growth phase

That answer is incorrect.
Correct answer:
Mature phase

In the mature phase, the industry growth mimics that of the general economy. Industry growth stabilizes and growing market share becomes difficult and costly. Growth companies may still exist in these industries. A common means of growth comes through acquisitions within the industry.

How would you expect a firm's P/E ratio to change if the constant growth rate of dividends were to increase?

* The P/E would decrease.
* The P/E is independent of the growth rate of dividends.
* The P/E would increase.
* The P/E would remain constant.

That answer is incorrect.
Correct answer:
The P/E would increase.

We can rewrite the P/E ratio as (payout x (1 + growth rate of dividends)) / (required rate of return - growth rate of dividends). Thus as the growth rate increases, the formula's numerator increases and the denominator decreases, resulting in a higher Price / Earnings ratio.

When analyzing a company, internal liquidity ratios may be important. Which of the following defines how the receivables turnover ratio is calculated?

## * COGS/Accounts payable

* Inventory/COGS
* 365/COGS
* Sales/Receivables
* COGS/Inventory

That answer is incorrect.
Correct answer:
Sales/Receivables

Sales/Receivables is the receivables turnover ratio. COGS (Cost of goods sold)/Inventory gives you the inventory turnover ratio while COGS/Accounts payable is the payables turnover ratio.

Consider the following information for a company:

Free cash flow for period $0=\$ 1,200.000$
Free cash flow for period $10=\$ 650.000$
Free cash flow for period $11=\$ 500.000$
Discount rate $=6 \%$
Growth rate $=4 \%$
The forecast horizon is 10 years.

Calculate the terminal value of this company using the Perpetual Growth method.

* \$75,000,000
* \$60,000,000
* $\$ 20,000,000$
* \$10,000,000
* \$50,000,000
* $\$ 25,000,000$

That answer is incorrect.
Correct answer:
\$25,000,000

The Perpetual Growth alternative to calculating Terminal Value for a company involves dividing Free Cash Flow for Period 1 after the forecast horizon by the difference between the discount and growth rates. In this case Terminal Value $=\$ 500,000 /(6 \%-4 \%)=\$ 500,000 /$ $.02=\$ 25,000,000$.

Which of the following are considered to be advantages of using price-to-sales (PS) multiples in stock valuation?
I. Unlike PE ratios, which may become negative, PS ratios are available for even the most troubled firms.
II. Revenue is relatively more difficult to manipulate when compared to earnings.
III. PS ratios are less volatile than PE ratios.
IV. PS multiples provide a convenient handle for examining the effects of changes in pricing policy.

* All of these answers
* II only
*I, II, \& III
* I only
* III only
* None of these answers

That answer is correct!

All of these answers are considered to be advantages of PS ratio analysis. While PE and PBV multiples may become negative and thus meaningless, PS ratios are always positive. Also, relative to earnings, revenue is more difficult to manipulate through accounting policy and decisions. PS ratios have the desirable quality of being relatively stable, and thus may be more reliable for valuation purposes. Finally, PS multiples provide a convenient method for examining the effects of pricing and other corporate strategic decisions.

When dividing Gross Profit by Net Sales (Gross Profit/Net Sales), an analyst is able to calculate which Profitability Ratio?

* Net Profit Margin
* Operating Profit Margin
* Gross Profit Margin
* Return on Owner's Equity
* Total Asset Turnover

That answer is incorrect.
Correct answer:
Gross Profit Margin

Gross Profit Margin = Gross Profit/Net Sales (where Gross Profit is equal to net sales less the cost of goods sold).

Acme, Inc. has average sales of $\$ 200,000$, average accounts payable of $\$ 60,000$, and average account receivable of $\$ 50,000$. What is Acme's average collection period?

* 203 days
* 30 days
* 110 days
* 91 days

That answer is incorrect.
Correct answer:
91 days

The average collection period is 365 divided by the receivables turnover ratio. The receivables turnover is equal to sales divided by receivables. In this case \$200,000 / \$50,000 gives us a receivables turnover of 4 . The 91-day average collection period is obtained from dividing 365 by 4 .

Which of the following is/are components of a statement of cash flows?
I. Assets
II. Net worth
III. Cash flows from investing activities
IV. Revenues
V. Expenses
VI. Cash flows from operating activities
VII. Liabilities
VIII. Cash flows from financing activities

* IV \& VI
* III, VI \& VIII
*IV \& V
* IV only
*I, II, \& V
*I, II \& VII
That answer is incorrect.
Correct answer:
III, VI \& VIII

The statement of cash flows integrates the information on the balance sheet and the income statement. The balance sheet shows what resources a firm controls and how those resources are financed. The income statement contains information on the profitability of a firm. While the balance sheet is a point in time representation, the income statement covers a period of time such as a month, quarter, or year.

Acme, Incorporated is a small manufacturing firm. The firm's income statement indicates a cost of goods sold amount of $\$ 100,000$. The average balance sheet shows an average accounts payable amount of $\$ 12,000$. What is Acme's average days payable outstanding?

* 30 days
* 28 days
* 52 days
* 8 days
* 44 days

That answer is incorrect.

Correct answer:

The payables turnover ratio is cost of goods sold (COGS) divided by average accounts payable. In this case $\$ 100,000 / \$ 12,000=8.33$. To convert this into average days payable outstanding, divide 365 by 8.33 . $365 / 8.33=43.8$ days.

Common size balance sheets are:

* Calculated using total assets as the common denominator.
* Useful in analyzing investment and financing choices over time.
* All these answers are correct.
* Useful in analyzing firms within an industry.

That answer is incorrect.
Correct answer:
All these answers are correct.

A common size income statement are constructed by representing all accounts as a percentage of sales, while a common size balance sheet uses total assets as the common denominator. A common size balance sheet provides insights into such things as the relative amounts of debt and equity used to finance the assets. Common size statements are not only useful for analyzing changes in aggregate accounts across time but also for comparison between companies, especially when the companies are of different sizes. However, the analysis must take into account such factors as the choice of accounting principles.

Characteristics of a firm that is "stuck in the middle" include:
I. Engaging in, but failing to achieve any of the three generic strategies.
II. Profitability, but an inability to increase market share.
III. A focus on only one plan for gaining competitive advantage.

* III only
* I and II
* II only
* I only

That answer is incorrect.
Correct answer:
I only

A firm gets "stuck in the middle" when it engages in multiple strategies but fails to achieve any of them. Such a firm competes at a disadvantage because the cost leader, differentiators, or focusers will be better positioned to compete in any given segment. This firm will earn attractive profits only if the structure of its industry is highly favorable, or if the firm is fortunate enough to have competitors that are also stuck in the middle. Usually, however, such a firm will be much less profitable than rivals achieving one of the generic strategies. Becoming stuck in the middle is a result of a firm's unwillingness or inability to determine how to compete. The firm tries for competitive advantage through many means and achieves none. Once a focuser has dominated its target segments, it is sometimes lured into an unclear generic strategy - thus becoming stuck in the middle. A focused strategy demands limiting potential sales. Once a segment has been dominated, a profitable growth alternative is to shift the generic strategy to new industries where it will provide above average returns or exploit interrelationships.

Ink, Inc. has a net profit margin of 6\%, total asset turnover of 1.5, and a financial leverage multiplier of 1.4. What is the ROE?

* 1.26\%
* Unknown, additional information required
* $4.8 \%$
* $8 \%$
* 26\%
* $4 \%$
* 12.6\%

That answer is incorrect.
Correct answer:
12.6\%

The 3 component DuPont Analysis indicates that ROE = (Net profit margin)(Total asset turnover)(Financial leverage multiplier).

Acme, Incorporated is a small manufacturing firm. The firm's current ratio is currently 1.0. Which of the following best describes what will happen to the firm's current ratio if they pay down accounts payable with cash?

* The current ratio will increase.
* The current ratio will increase only if LIFO is used.
* The current ratio will not change.
* The current ratio will decrease.
* The current ratio will increase only if FIFO is used.

That answer is incorrect.
Correct answer:
The current ratio will not change.

The current ratio is defined as current assets divided by current liabilities (CA / CL). Thus if the current ratio is 1 and current assets decrease by the same amount as current liabilities, the current ratio will remain static.

When analyzing the quality of a firm's financial statements, which of the following will typically lead to a higher quality balance sheet?
I. Conservative use of debt
II. Assets with a market value greater than book value
III. The absence of off balance sheet liabilities

* Il only
* I only
* \| \& II
* II \& III
* III only
* I, II \& III

That answer is incorrect.
Correct answer:
I, II \& III

The conservative use of debt typically leads to a higher quality balance sheet. This is attributed to a lower potential of financial distress and the presence of unused borrowing capacity. Assets with a greater market value than book value also indicates a higher quality balance sheet. If book value is higher than market value, the firm may have items such as out-of-date inventory, nonperforming assets, and outdated technology. Finally, the presence of off balance sheet liabilities detracts from the quality of a firm's balance sheet. These may include joint ventures and loan guarantees to subsidiaries.

Which of the following is not considered to be advantage of using price-to-sales (PS) multiples in stock valuation?
I. Unlike PE ratios, which may become negative, PS ratios are available for even the most troubled firms.
II. Revenue is relatively more difficult to manipulate when compared to earnings.
III. PS ratios are more volatile than PE ratios and thus react to the market quicker.
IV. PS multiples provide a convenient handle for examining the effects of changes in pricing policy.

* None of these
* III only
*II only
* I only
* All of these
*I, II, \& III
That answer is incorrect.
Correct answer:
III only
PS ratio analysis has many advantages. While PE and PBV multiples may become negative and thus meaningless, PS ratios are always positive. Also, relative to earnings, revenue is more difficult to manipulate through accounting policy and decisions. PS ratios are actually less volatile than PE multiples, and thus may be more reliable for valuation purposes. Finally, PS multiples provide a convenient method for examining the effects of pricing and other corporate strategic decisions.

Hand-Held, Incorporated is a company that produces and markets personal electronic devices. Acme, Incorporated produces consumer durable goods. The two companies are currently in merger discussions. While these firms are in two entirely different industries, it is viewed that Acme's strong cash flow may help finance the rapid growth of Hand-Held. Which of the following would best describe this type of merger?

* Hostile
* Horizontal
* White Knight
* Conglomerate
* Congeneric
* Vertical

That answer is incorrect.
Correct answer:

## Conglomerate

A horizontal merger is the merger of two firms in the same line of business. Vertical mergers involve a company merging with either a supplier or customer. Congeneric mergers are the merging of two somewhat related firms, but not a true vertical or horizontal merger. Finally, a conglomerate merger involves two firms in different industries.

Which of the following is/are components of an income statement?
I. Assets
II. Net worth
III. Cash flows from investing activities
IV. Revenues
V. Expenses
VI. Cash flows from operating activities
VII. Liabilities
VIII. Cash flows from financing activities

* IV only
* I \& II
*I, II, \& V
* IV \& V
*I, II \& VII
* III, VI \& VIII

That answer is incorrect.
Correct answer:
IV \& V

The income statement contains information on the profitability of the firm during a specified period (usually monthly to yearly). The balance sheet is comprised of a firm's assets, liabilities and net worth at a point in time. Finally, the statement of cash flows integrates the information on the balance sheet and income statement.

Which of the following are examples of advantages to using price-to-book value (PBV) multiples in stock valuation?
I. PBV is usually a stable and relatively easy measure of value compared to discounted cash flow estimates.
II. Even firms with negative earnings may be valued using PBV multiples.
III. If accounting standards are reasonably consistent, PBV ratios may be used to compare similar firms for signs of over or under value.
IV. Service oriented firms without many fixed assets are prime candidates for PBV ratio analysis.

* III only
*I, II, and III
* IV only
* I only
* II only
* All of these answers

That answer is incorrect.
Correct answer:
I, II, and III

PBV multiple analysis is considered to be a stable, intuitive, and relatively simple method of valuation in comparison to discounted cash flow analysis. Another advantage is that even firms with negative cash flow may be valued using PBV multiples analysis. Additionally, given reasonably consistent accounting standards, similar firms may be compared for signs of over or under valuation. This methodology of stock valuation breaks down however if accounting standards vary significantly as well as for firms without significant fixed assets, such as service oriented firms.

Consider the following information for Company ABC:

Net income = \$140.1
Interest expense $=\$ 117.0$
Preferred dividend $=\$ 4.0$
Average common equity $=\$ 498.45$
Average total equity $=\$ 512.7$

Calculate this firm's return on total equity.

* 4.63\%
* 26.55\%
* 27.33\%
* 28.11\%
* 43.51\%

That answer is incorrect.
Correct answer:
27.33\%

Return on total equity is calculated as follows: Return on total equity $=$ Net income / Average total equity $=140.1 / 512.7=27.33$.

Which of the generic strategies usually involves selling a standard product?

* Focus
* Differentiation
* Cost leadership
* None of these answers is correct

That answer is incorrect.
Correct answer:
Cost leadership

In a cost leadership strategy, a company seeks to provide its products to all customers with lower production costs. That is, the firm becomes the low-cost producer in its industry. The sources of cost advantage are myriad and are a function of the industry's structure. Low-cost producers usually sell a standard product and emphasize the attainment of cost advantages from all possible sources.

Return on equity equals:

[^2]* (Net profit margin)(Total asset turnover)(Financial leverage multiplier)(1+tax rate)
* (Net profit margin)(Total asset turnover)(Interest expense rate)(1-tax rate)
* (Net profit margin)(Total asset turnover)(Interest expense rate)

That answer is correct!

The 3 component duPont analysis is: (Net profit margin)(Total asset turnover)(Financial leverage multiplier).

You have obtained the following information from Acme's balance sheet:

Cash = \$10 million
Accounts receivable $=\$ 120$ million
Inventory = \$100 million
Accounts payable $=\$ 135$ million

What will happen to the firm's current ratio if Acme sells $\$ 50$ million of inventory for cash?

* The current ratio will increase only if LIFO is used.
* The current ratio will remain unchanged.
* The effect upon the current ratio of this transaction is unknown.
* The current ratio will increase only if FIFO is used.
* The current ratio will increase.

That answer is incorrect.
Correct answer:
The current ratio will remain unchanged.

The current ratio is defined as current assets divided by current liabilities. Since both inventory and cash are current assets, the current ratio will remain unchanged by this transaction.

Which of the following is not a risk associated with a cost leadership strategy?

* Cost focusers achieve even lower cost in segments.
* May not be sustainable because of technology advancement.
* May not be sustainable because of imitation and/or other bases for cost leadership erode.
* Differentiation focusers achieve even greater differentiation in segments.

That answer is incorrect.
Correct answer:
Differentiation focusers achieve even greater differentiation in segments.

A generic strategy cannot result in above-average performance in the long-run unless it is sustainable. This means that the strategy must be immune to evolving competition and industry structure. Each generic strategy has different risks.

The following are considered to be key profitability measurements:
I. return on equity
II. quick ratio
III. current ratio
IV. gross margin

* III and IV
* II and III
* I and IV
* I and II

That answer is incorrect.
Correct answer:
I and IV

Gross profit as a percent of sales is an indicator of the cost structure of the company. Analyzing trends in this ratio, along with comparable industry figures, indicates the company's cost/price position. For example, if ABC's gross margin is $15.21 \%$ versus $16.75 \%$ for the industry, then on average ABC's inputs are more expensive than those of their competitors. Return on Owner's Equity (ROE) is a very important profitability measure as it reflects the rate of return that has been earned on the equity capital by the firm after accounting for payments to all other capital suppliers. As this ratio is an indication of the rate of return on the owner's equity capital, it should correspond to the firm's overall business risk.

Ink, Inc has a ROE of $10 \%$ and a dividend payout policy of $20 \%$ of earnings. Estimate the firm's sustainable growth rate.

* 10\%
* $8 \%$
* 30\%
* $-5 \%$
* $15 \%$
* 5\%

That answer is incorrect.
Correct answer:
8\%

A firms sustainable growth rate may be estimated by multiplying ROE by the retention ratio. In this case the sustainable growth rate $=10 \% \times(1-$ payout rate $)=8 \%$.

Which of the following is/are components of a balance sheet?
I. Assets
II. Net worth
III. Cash flows from investing activities
IV. Revenues
V. Expenses
VI. Cash flows from operating activities
VII. Liabilities
VIII. Cash flows from financing activities

* III, VI \& VIII
* \| \& II
* IV \& V
* I only
*I, II \& VII
*I, II, \& V
That answer is incorrect.
Correct answer:
I, II \& VII

The balance sheet is comprised of a firm's assets, liabilities and net worth at a point in time. The income statement contains information on the profitability of the firm during a specified period, while the statement of cash flow integrates the information on the balance sheet and income statement.

Which of the following are advantages of using price-to-book value (PBV) multiples in stock valuation?
I. Book value tends to be relatively stable.
II. Firms with negative earnings may be valued using $\mathrm{P} / \mathrm{B}$ ratios.
III. Firms without significant fixed cost tend to distort P/B ratios.

* I \& II
* III only
* II \& III
* I only

That answer is correct!

While all three statements are true, the fact that firms without significant fixed costs (such as service firms) distort P/B multiples is actually a disadvantage of using price-to-book multiples. Also note that if negative earnings persist long enough or are of significant size, book value of equity may actually go negative. If book value goes negative, the $\mathrm{P} / \mathrm{B}$ ratio will also be negative and of little usefulness.

Consider the following information that relates to Company XYZ (a stable firm):

Profit margin 6\% (based on expected earnings)
Payout ratio 25\%
Required return on equity $15 \%$
Growth rate of dividends 5\%

Calculate the PS (Price to Sales) ratio for this firm.

* 6.7
*. 15
* 1.00
*. 05
* 5
* 1.49

That answer is incorrect.
Correct answer:
. 15

The PS ratio for a stable firm may be calculated with the formula: PS = (Profit Margin $x$ Payout Ratio)/(Required return on equity - Growth Rate on Dividends) $=(.06 \times 25) /(.15-$ .05) $=.15$

The optimal capital structure may be best described as which of the following?

* The minimum debt financing possible, which lessens the possibility of bankruptcy.
* The minimum equity financing possible, which leads to a higher per share value.
* The maximum debt financing possible, which takes full advantage of tax shields.
* The mix of debt and equity financing that produces the highest firm value.

That answer is incorrect.
Correct answer:
The mix of debt and equity financing that produces the highest firm value.

The optimal capital structure is obtained when the equity and debt financing are properly mixed to produce the maximum value for the firm. The tax advantages of debt financing
suggest that some debt financing will increase share value. However, at some point these benefits are outweighed by the costs associated with a higher probability of financial distress or bankruptcy. The optimal level of debt will vary from firm to firm according to the unique characteristics of each firm and the industries in which they operate.

Industries may be classified by their behavior during the business cycle. Which classification is characterized by above normal sales and profits independent of the business cycle?

* Cyclical
* Declining
* Defensive
* Growth

That answer is incorrect.
Correct answer:
Growth

The three classifications used to describe industries by their behavior during the business cycle include growth, defensive, and cyclical. A growth industry is characterized by above normal expansion in sales and revenues independent of the business cycle. A defensive industry is a stable performer during both the ups and downs of the business cycle. A cyclical industry is one in which profitability tracks along the business cycle, even to an exaggerated level.

Ink, Inc. has sales of $\$ 1,000$, costs of goods sold of $\$ 400$, pre-interest expense $\$ 300$, and interest expense of $\$ 100$. What is the firm's interest coverage ratio?

That answer is incorrect.
Correct answer:

## 3

The interest coverage ratio = Operating profit / Interest expense = EBIT / Interest expense. In this case the interest coverage ratio $=(\$ 1,000-\$ 400-\$ 300) / \$ 100=3$.

You have obtained the following information from Acme's balance sheet:

Average cash = \$10 million
Average accounts receivable $=\$ 120$ million
Average inventory $=\$ 100$ million
Average accounts payable $=\$ 135$ million

Additionally, you know that Acme's cost of goods sold was $\$ 500$ million (from the income statement). What was Acme's inventory turnover?

* 0.2 times
* 1.0 times
* 5 times
* 50 times
* 10 times

That answer is incorrect.
Correct answer:
5 times

Inventory turnover is calculated as cost of goods sold divided by average inventory or in this case $\$ 500 / \$ 100=5$.

How would you expect a firm's P/S (price/sales) multiple to change if the company's payout ratio were to decrease?

* The P/S would decrease.
* The P/S would remain constant.
* The P/S multiple moves independently of the firm's growth rate.
* The P/S would increase.

That answer is correct!

We can rewrite the $\mathrm{P} / \mathrm{S}$ multiple as: (profit margin $\times$ payout ratio $\times(1+$ growth rate) $) /$
(required rate of return $x$ growth rate). Thus as a company's payout ratio decreases, so does the P/S (price/sales) multiple.

In which stage of an industry's life cycle would success tend to be independent of the business cycle and high profit margins readily obtainable?

* Growth phase
* Mature phase
* Decline phase
* Pioneer phase

That answer is correct!

In the growth phase demand for products is established. Growth in sales and earnings accelerates. Potentially successful business strategies are still difficult to identify. Demand for new, innovative products is high. Success for growth companies tends to be independent of the business cycle and high profit margins are readily obtainable. Analysts seek such growth companies early in this phase prior to run-ups in the stock price.

Which of the following is used to measure how efficiently a firm uses its assets to generate sales?

* Return on assets
* Working capital ratio
* Asset turnover
* Return on capital

That answer is incorrect.
Correct answer:
Asset turnover

Total Asset Turnover indicates how effectively the company uses its assets to generate sales, and is computed as:
Net sales / Average total assets
This ratio must be interpreted with care. Exceedingly high values may imply a lack of excess capacity and signal the need for additional capital investment. Alternatively, a high total asset turnover ratio may mean that the company is using mostly outdated, fully depreciated assets. Very low values suggest that the firm is not efficiently utilizing the assets at its disposal to generate sales.

Acme, Incorporated is a small manufacturing firm. The firm's current ratio is currently 0.8. Which of the following best describes what will happen to the firm's current ratio if they pay down accounts payable with cash?

* The current ratio will increase only if LIFO is used.
* The current ratio will decrease.
* The current ratio will increase.
* The current ratio will increase only if FIFO is used.
* The current ratio will not change.

That answer is incorrect.
Correct answer:
The current ratio will decrease.

The current ratio is defined as current assets divided by current liabilities (CA / CL). Thus if the current ratio is less than 1 and current assets decrease by the same amount as current liabilities, the current ratio will also decline.

You have obtained the following information from Acme's financial statements:

Average cash = \$10 million
Average accounts receivable $=\$ 120$ million
Average inventory $=\$ 100$ million
Average accounts payable $=\$ 135$ million
Cost of goods sold $=\$ 600$ million

What was Acme's inventory turnover?

* 60 times
* 6 times
* 1.0 times
* 0.12 times
* 12 times

That answer is incorrect.
Correct answer:
6 times

Inventory turnover is calculated as cost of goods sold divided by average inventory or in this case $\$ 600 / \$ 100=6$.

You have obtained the following information from Acme's balance sheet:

Cash = \$10 million
Accounts receivable $=\$ 120$ million
Inventory = \$100 million

Accounts payable $=\$ 135$ million

What is Acme's quick ratio?

* 1.48
* 0.675
* 13.5
* 0.96
* 8.57
* 3.35

That answer is incorrect.
Correct answer:
0.96

The quick ratio is defined as cash and accounts receivable divided by accounts payable [QR $=(C+A R) / A P]$. In this case $Q R=(\$ 10+\$ 120) / \$ 135=.96$.

You have obtained the following information from Acme's balance sheet:

Cash = \$10 million
Accounts receivable $=\$ 90$ million
Inventory = \$100 million
Accounts payable $=\$ 135$ million

What is Acme's quick ratio?

* 0.74
* 3.35
* 8.57
* 13.5
* 0.675
* 1.48

That answer is correct!

The quick ratio is defined as cash and accounts receivable divided by accounts payable [QR $=(C+A R) / A P]$. In this case $Q R=(\$ 10+\$ 90) / \$ 135=.74$.

Industries typically go through life cycle phases. Which of the following phases is characterized by a period when the product or service is yet unproven? This is a period of high risk and equity investors must be prepared for the possibility of a total loss at this stage.

* Growth phase
* Pioneer phase
* Maturity phase
* Decline phase

That answer is incorrect.
Correct answer:
Pioneer phase

The pioneer phase is a time when the product or service is yet unproven. During this time, the correct strategy for a firm in the industry may not yet be clear. This period is marked by high risk and equity investors should be aware of the possibility for significant losses.

Consider the following information for Firm XYZ:

Net income = \$188.0
Interest expense $=\$ 117.0$
Preferred dividend = \$4.0
Average common equity = \$787.3

Calculate this company's return on owner's equity for the period.

* 9.02\%
* 23.37\%
* 24.39\%
* 23.88\%
* $9.53 \%$

That answer is incorrect.
Correct answer:
23.37\%

The return on owner's equity is concerned with the common shareholder's return and is calculated as follows: Return on owner's equity $=$ (Net income - Preferred dividend) / Average common equity $=(188.0-4.0) / 787.3=23.37$.

Consider the following information for firm XYZ:

Net sales = \$6,365
Cost of goods sold $=\$ 3,874$
Operating profit $=\$ 385$
Net income = \$188

Calculate this firm's operating profit margin

* $51.86 \%$
* 6.05\%
* 2.95\%
* 39.14\%
* 60.86\%

That answer is incorrect.
Correct answer:
6.05\%

Operating profit margin $=$ Operating profit/Net sales $=\$ 385 / \$ 6,365=6.05 \%$.

Firms pursuing strategic choices without considering the long-term consequences of their actions on industry structure are termed:

* Risk takers
* Saboteurs
* Destroyers
* Generic competitors

That answer is incorrect.
Correct answer:
Destroyers

Firms pursuing strategic choices without considering the long-term consequences of their actions on industry structure are termed "destroyers." These firms are either attempting to find ways to overcome competitive disadvantages, seeking desperate solutions to their problems, or are so unaware that they do not know their costs or have unrealistic assumptions about the future.
Industry leaders' actions can have an uneven impact on structure because of their size and influence over buyers, suppliers, and other competitors. This implies that anything that changes overall industry structure will affect the leaders and their market shares as well. Therefore, leaders must make a trade-off between gaining competitive ground and maintaining the health of the entire industry.

Acme, Incorporated is a small manufacturing firm. The firm's current ratio is currently 1.8. Which of the following best describes what will happen to the firm's current ratio if they pay down accounts payable with cash?

* The current ratio will increase.
* The current ratio will decrease.
* The current ratio will increase only if LIFO is used.
* The current ratio will not change.
* The current ratio will increase only if FIFO is used.

That answer is correct!

The current ratio is defined as current assets divided by current liabilities (CA / CL). Thus if the current ratio is more than 1 and current assets decrease by the same amount as current liabilities, the current ratio will increase.

Assuming estimates of $0.42,0.14$ and 0.12 for the dividend payout, required rate of return, and expected growth rate, respectively, calculate the earnings multiplier.

* 3.0
* 24.2
*-21
* 21

That answer is incorrect.
Correct answer:
21

The price earnings ratio can be calculated as the Dividend payout ratio / (Required rate of return - Expected growth rate). Assuming estimates of $0.42,0.14$ and 0.12 for the dividend payout, required rate of return, and expected growth rate, respectively, the multiplier is calculated as follows: $\mathrm{P} / \mathrm{E}=.42 /(.14-.12)=.42 / .02=21 \mathrm{X} . \mathrm{A}$ firm's PE ratio is negatively related to its payout ratio and required rate of return, and positively related to its expected growth rate. Thus, firms with very favorable growth prospects typically pay little or no dividends and have relatively high PE ratios, while firms with low growth prospects tend to pay dividends and have relatively lower PE ratios.

Which of the following would be advantages of using a PS model (Price to Sales) over other stock valuation models such as PE (Price to Earnings) or PBV (Price to Book Value)?
I. PS multiples tend to be more volatile than PE multiples, thus react more quickly to the market
II. PS multiples are less volatile than PE ratios, thus may be more reliable
III. Unlike earnings and book value, sales are harder to manipulate
IV. PS multiples ignore the effects of pricing policies and concentrates on the bottom line

* II only
* III only
* IV only
*I only
*I \& IV
* II \& III

That answer is incorrect.
Correct answer:
II \& III

Due to the fact that PS multiples tend to be less volatile than PE ratios, they may be more reliable for valuation purposes. Also, revenues (sales) are much more difficult to manipulate than earnings and book value which are heavily dependent on items such as the accounting treatment of depreciation, inventory and extraordinary items.

How would you expect a firm's P/E ratio to change if the company's risk level were to decrease?

* The P/E would decrease.
* The P/E would increase.
* The P/E would remain constant.
* The P/E ratio is independent of the company's risk level.

That answer is incorrect.
Correct answer:
The P/E would increase.

We can rewrite the P/E ratio as (payout x (1 + growth rate of dividends)) / (required rate of return - growth rate of dividends). If a company's risk level were to decrease, the required rate of return would also decrease. This in turn would lead to a higher P/E ratio.

Smith is an analyst who wishes to study trends of a firm's cost of goods sold (COGS). In order to standardize the analysis to a common-size basis, Smith should divide COGS by which of the following?

* Sales
* The industry average
* Assets
* Net Income

That answer is correct!

Common sized statements normalize the balance sheet and income statement, which allows the analyst to compare firms of different sizes. A common sized balance sheet expresses the various accounts as a percentage of total assets while a common sized income statement states items as a percentage of sales.

Which of the generic strategies usually involves seeking to achieve a competitive advantage in its target segments, without regard to an overall competitive advantage?

* Competitive pricing
* Cost leadership
* Differentiation
* Focus

That answer is incorrect.
Correct answer:
Focus

The third generic strategy is focus. With this strategy a firm selects a segment or group of segments in the industry and orients its strategy to serving only them. The focuser seeks to achieve a competitive advantage in its target segments, without regard to an overall competitive advantage. The focus strategy has two variants: 1 . In cost focus, a firm seeks a cost advantage in its target segment. Cost focus seeks to exploit a difference in cost
behavior in some segments. 2. In differentiation focus, a firm seeks differentiation in its target segment.

In which of the following performance measures does the analyst evaluate the annual performance of management by comparing the firm's net operating profit less adjusted taxes (NOPLAT) to the firm's total cost of capital in dollar terms, including the cost of equity?

* P/E Ratio Analysis
* Market Value Added (MVA)
* Economic Value Added (EVA)
* Franchise Factor
* CAMEL Ratings

That answer is incorrect.
Correct answer:
Economic Value Added (EVA)

Economic Value Added (EVA) = Adjusted Operating Profits before Taxes - (Cash Operating Taxes + Dollar Cost of Capital). EVA may be positive or negative and indicates whether a firm earned an excess above its cost of capital during the year analyzed.


[^0]:    * The P/S would remain constant.
    * The P/S multiple moves independently of the profit margin.
    * The P/S would decrease.
    * The P/S would increase.

[^1]:    * P/E Ratio Analysis
    * Market Value Added (MVA)

[^2]:    * (Net profit margin)(Total asset turnover)(Financial leverage multiplier)
    * (Net profit margin)(Total asset turnover)(Financial leverage multiplier)(1-tax rate)

