Question 1

L2R36TB-AC012-1512

LOS: LOS-8560

Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)

Difficulty: medium

Baker Company has forecast earnings growth of 5.0 percent, with required return on equity of 10.0 percent. Baker has typically retained 40 percent of earnings and expects to continue to do so. Baker's justified forward P/E based on the forecasted fundamentals is *closest to*:

○ 8.0

● 12.0

○ 13.0

Rationale

✗ **8.0**

The justified forward P/E is:

$$\frac{P_0}{E_1} = \frac{(1 - \mathrm{RR})}{r_c - g} = \frac{(1 - 0.40)}{(0.10 - 0.05)} = 12.0$$

Rationale

✓ **12.0**

The justified forward P/E is:

$$\frac{P_0}{E_1} = \frac{(1 - \mathrm{RR})}{r_c - g} = \frac{(1 - 0.40)}{(0.10 - 0.05)} = 12.0$$

Rationale

✗ **13.0**

The justified forward P/E is:

$$\frac{P_0}{E_1} = \frac{(1 - \mathrm{RR})}{r_c - g} = \frac{(1 - 0.40)}{(0.10 - 0.05)} = 12.0$$

Question 2

L2R36TB-AC007-1512
LOS: LOS-8490
Lesson Reference: Lesson 1: Introduction: The Method of Comparables versus the Method of Forecasted Fundamentals
Difficulty: medium

Duram Corporation has earnings per share of $1.57. The market has priced comparable assets at $14.50 for each $1.00 of EPS. Based on the law of one price, Duram's share price will be *closest to*:

○ $9.24
● $22.77
○ $25.40

Rationale

✗ **$9.24**

Duram's share price should be:

$$\mathrm{P}_{\text{subject}} = \mathrm{E}_{\text{subject}} \times \frac{\mathrm{P}_{\text{comps}}}{\mathrm{E}_{\text{comps}}} = \$1.57 \times \frac{\$14.50}{\$1.00} \cong \$22.27$$

Rationale

✓ **$22.77**

Duram's share price should be:

$$\mathrm{P}_{\text{subject}} = \mathrm{E}_{\text{subject}} \times \frac{\mathrm{P}_{\text{comps}}}{\mathrm{E}_{\text{comps}}} = \$1.57 \times \frac{\$14.50}{\$1.00} \cong \$22.27$$

Rationale

✗ **$25.40**

Duram's share price should be:

$$\mathrm{P}_{\text{subject}} = \mathrm{E}_{\text{subject}} \times \frac{\mathrm{P}_{\text{comps}}}{\mathrm{E}_{\text{comps}}} = \$1.57 \times \frac{\$14.50}{\$1.00} \cong \$22.27$$

Question 3

L2EQ-TBB218-1412
LOS: LOS-8570
Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)
Difficulty: medium

Which of the following issues of multiple linear regression is *most likely* to be a limitation of cross-sectional regressions used to predict P/E multiples?

○ Serial correlation.

○ Heteroskedasticity.

● Multicollinearity.

Rationale

✓ **This Answer is Correct**

Cross-sectional regressions used to predict P/E multiples use growth rate in earnings, payout ratio, and a volatility measure as independent variables. As such, these models tend to be prone to the problem of multicollinearity, since there is often correlation between the independent variables.

Question 4

L2EQ-TBX113-1502

LOS: LOS-8640

Lesson Reference: Lesson 7: International Considerations, Momentum Valuation Indicators, and Issues in Practice with Valuation Indicators

Difficulty: easy

When calculating standardized unexpected earnings, the difference between the actual reported earnings of a company and the mean consensus earnings is divided by the standard deviation of:

○ The historical quarterly earnings of the company.

○ Analyst expectations of earnings in the current quarter.

● The historical quarterly unexpected earnings.

Rationale

✓ **This Answer is Correct**

Standardized unexpected earnings is calculated by taking the current earnings surprise and dividing by the standard deviation of earnings surprises over some historical period.

Question 5
L2R36TB-AC015-1512
LOS: LOS-8570
Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)
Difficulty: medium

An analyst for Delta Company has performed a cross-sectional regression analysis and developed a model that somewhat reliably forecasts P/E:

$$\mathrm{P/E_F} = 10.2 + 1.8\mathrm{DPR} - 0.03\beta + 14.5\mathrm{EGR}$$

Delta has a 1.1 beta and it plans to retain 45 percent of earnings for reinvestment. If Delta expects earnings growth of 12 percent next year, its expected P/E ratio will be *closest to*:

○ 9
○ 11
● 13

Rationale
✗ **9**
Recognizing that DPR = (1 – RR) = 1 – 0.45 = 0.55, we find the expected P/E as follows:

$$\mathrm{P/E} = 10.2 + 1.8\mathrm{DPR} - 0.03\beta + 14.5\mathrm{EGR} = 10.2 + 1.8\,(0.55)$$
$$-0.03\,(1.1) + 14.5\,(0.12) \approx 13$$

Rationale
✗ **11**
Recognizing that DPR = (1 – RR) = 1 – 0.45 = 0.55, we find the expected P/E as follows:

$$\mathrm{P/E} = 10.2 + 1.8\mathrm{DPR} - 0.03\beta + 14.5\mathrm{EGR} = 10.2 + 1.8\,(0.55)$$
$$-0.03\,(1.1) + 14.5\,(0.12) \approx 13$$

Rationale
✓ **13**
Recognizing that DPR = (1 – RR) = 1 – 0.45 = 0.55, we find the expected P/E as follows:

$$\mathrm{P/E} = 10.2 + 1.8\mathrm{DPR} - 0.03\beta + 14.5\mathrm{EGR} = 10.2 + 1.8\,(0.55)$$
$$-0.03\,(1.1) + 14.5\,(0.12) \approx 13$$

Question 6

L2EQ-TB0032-1412

LOS: LOS-8540

Lesson Reference: Lesson 3: Normalized Earnings and the Earnings Yield

Difficulty: medium

An analyst may find the earnings yield a more sensible measure than P/E ratio in all of the following scenarios *except:*

○ When a company has negative earnings.

○ When a company has extremely low but positive earnings.

● When a company has extremely high positive earnings.

Rationale

✓ **This Answer is Correct**

The P/E ratio becomes meaningless when earnings are less than zero. When earnings are close to zero, the P/E ratio can become very large and outliers can skew the result of analysis. The way to mitigate these scenarios is to invert the P/E ratio and consider ranking investments in terms of their earnings yield, E/P.

Question 7

L2EQ-PQ3508-1411
LOS: LOS-8520
Lesson Reference: Lesson 2: Price Multiples Based on the Method of Comparables
Difficulty: medium

On June 30, 2011, the stock of Mercury Ltd. was trading at $54.50 per share. The following information regarding the company's quarterly dividends is also available:

Dividends paid per share on:

September 30, 2010 = $0.50

December 31, 2010 = $0.54

March 31, 2011 = $0.56

June 30, 2011 = $0.58

Next year's expected dividend is $2.65 per share, when the stock is expected to sell for $58.20.

The company's trailing and leading dividend yields are *closest to*:

	Trailing Dividend Yield	Leading Dividend Yield
A	4.26%	4.86%
B	4.00%	4.86%
C	4.00%	4.55%

● Row A
○ Row B
○ Row C

Rationale

✓ **This Answer is Correct**

Since the company makes quarterly dividend payments, the dividend rate is calculated on the basis of the most recent quarterly dividend.

Dividend rate at June 30, 2011 = $0.58 × 4 = $2.32

Trailing dividend yield = Dividend rate / Current price per share

Trailing dividend yield = 2.32 / 54.50 = 4.26%

Leading dividend yield = Next year's dividend / Current price per share

Leading dividend yield = 2.65 / 54.50 = 4.86%

Question 8

L2EQ-PQ3515-1411
LOS: LOS-8560
Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)
Difficulty: medium

Jonathan is evaluating the stock of Pyramid Constructors, which is currently trading at $34 per share. He gathers the following information regarding the company:

Sales per share = $9.71

Long-term profit margin = 11.50%

Dividend payout ratio = 35%

Earnings growth rate = 9%

Required rate of return on equity = 10%

Based on the justified P/S multiple, the stock is *most likely*:

● Undervalued
○ Fairly valued
○ Overvalued

Rationale

✓ **This Answer is Correct**

Justified P/S ratio = $[(E_0 / S_0) \times (1 - b) \times (1 + g)] / (r - g)$

Justified P/S ratio = $(0.115 \times 0.35 \times 1.09) / (0.10 - 0.09) = 4.39$

P/S multiple based on market price = 34 / 9.71 = 3.50

Since the P/S multiple based on market price is lower than the justified P/S multiple, the stock is undervalued.

Question 9

L2EQ-PQ3514-1411
LOS: LOS-8560
Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)
Difficulty: medium

Subaru Inc.'s stock is currently trading at $14 per share. An analyst gathered the following information regarding the stock:

Book value per share = $5.25

Return on equity = 15%

Required rate of return on equity = 11%

Sustainable growth rate = 5%

Based on the justified P/B, the company's stock is *most likely*:

○ Undervalued
○ Fairly valued
● Overvalued

Rationale

✓ **This Answer is Correct**

Justified P/B multiple = (ROE − g) / (r − g) = (0.15 − 0.05) / (0.11 − 0.05) = 1.67

P/B multiple based on market price = 14 / 5.25 = 2.67

Since the stock's P/B multiple based on market price is higher than that based on forecasted fundamentals, it is overvalued.

Question 10
L2R36TB-AC011-1512
LOS: LOS-8520
Lesson Reference: Lesson 2: Price Multiples Based on the Method of Comparables
Difficulty: medium

An analyst has assembled Able Company's adjusted actual and forecast EPS data below. It is currently June 1, and Able's fiscal year is the calendar year.

	Q1	Q2	Q3	Q4	Annual
Current year	(0.18)A	0.21F	0.45F	0.05F	0.53F
Next year	(0.05)F	0.35F	0.60F	0.10F	1.00F

Given a current price of $14.00, Able's forward P/E based on the appropriate four estimated quarters will be *closest to*:

○ 14
○ 17
● 21

Rationale
✗ **14**
Because the second quarter is not yet complete, an analyst would most likely use that quarter's forecast as the first period of an annual forecast. Therefore, forecast earnings would be the sum of current year Q2 through next year Q1, or 0.66 (0.21 + 0.45 + 0.05 – 0.05). P/E based on the forecast four quarters is 21.2 (14 / 0.66).

Rationale
✗ **17**
Because the second quarter is not yet complete, an analyst would most likely use that quarter's forecast as the first period of an annual forecast. Therefore, forecast earnings would be the sum of current year Q2 through next year Q1, or 0.66 (0.21 + 0.45 + 0.05 – 0.05). P/E based on the forecast four quarters is 21.2 (14 / 0.66).

Rationale
✓ **21**
Because the second quarter is not yet complete, an analyst would most likely use that quarter's forecast as the first period of an annual forecast. Therefore, forecast earnings would be the sum of current year Q2 through next year Q1, or 0.66 (0.21 + 0.45 + 0.05 – 0.05). P/E based on the forecast four quarters is 21.2 (14 / 0.66).

Question 11

L2EQ-PQ3504-1411

LOS: LOS-8510

Lesson Reference: Lesson 2: Price Multiples Based on the Method of Comparables

Difficulty: medium

Which of the following price multiples is more appropriate for valuing financial sector companies that have relatively large holdings or liquid assets?

○ P/E ratio
○ P/S ratio
● P/B ratio

Rationale

✓ **This Answer is Correct**

For financial sector companies, the P/B ratio is more meaningful as their book values reflect recent market values.

Question 12
L2R36TB-AC013-1512
LOS: LOS-8560
Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)
Difficulty: medium

An analyst has determined a value of $1.75 billion for Catalyst, Inc. common stock using a multi-stage FCFE model. The company currently has 175 million common shares outstanding. First year forecast earnings per share based on fundamentals in the FCFE model are $0.50. The analyst will develop a justified forward P/E ratio *closest to*:

● 20
○ 22
○ 24

Rationale

✓ **20**

The current price would be justified based on fundamentals in the FCFE forecast and the number of common shares outstanding. This price, divided by first year forecast earnings equals the justified forward P/E ratio:

$$\frac{P_0}{E_1} = \frac{\$1{,}750\text{ million}/175\text{ million}}{\$0.50} = 20$$

Rationale

✗ **22**

The current price would be justified based on fundamentals in the FCFE forecast and the number of common shares outstanding. This price, divided by first year forecast earnings equals the justified forward P/E ratio:

$$\frac{P_0}{E_1} = \frac{\$1{,}750\text{ million}/175\text{ million}}{\$0.50} = 20$$

Rationale

✗ **24**

The current price would be justified based on fundamentals in the FCFE forecast and the number of common shares outstanding. This price, divided by first year forecast earnings equals the justified forward P/E ratio:

$$\frac{P_0}{E_1} = \frac{\$1{,}750\text{ million}/175\text{ million}}{\$0.50} = 20$$

Question 13

L2EQ-PQ3513-1411

LOS: LOS-8560

Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)

Difficulty: medium

Joshua is considering the purchase of Bitlom Capital's stock, which is currently trading at $24. The company's payout ratio is 40% and its forecasted long-term growth rate is 6%. Given a required rate of return on the company's stock of 11%, the justified trailing and forward P/E ratios are *closest to*:

	Justified Trailing P/E	Justified Forward P/E
A	8.48	8.00
B	12.72	12.00
C	9.54	9.00

● Row A

○ Row B

○ Row C

Rationale

✓ **This Answer is Correct**

Justified trailing P/E ratio = $[(1 - b)\ (1 + g)] / (r - g)$

Justified trailing P/E ratio = $(0.4 \times 1.06) / (0.11 - 0.06) = 8.48$

Justified forward P/E ratio = $(1 - b) / (r - g)$

Justified forward P/E ratio = $0.4 / (0.11 - 0.06) = 8$

Question 14

L2R36TB-AC008-1512

LOS: LOS-8520

Lesson Reference: Lesson 2: Price Multiples Based on the Method of Comparables

Difficulty: medium

Big Food's fiscal period follows the calendar year, with current year forecast EPS of EUR 3.04 and next year forecast EPS of EUR 3.16. Big Food's share price today is EUR 45.00. If it is February 29 of the current year, Big Food's next twelve months (NTM) P/E ratio will be *closest to*:

○ 14.3x

● 14.7x

○ 15.2x

Rationale

✗ 14.3x

The forecast EPS for the next twelve months (NTM) will be EUR 3.06 [(10/12 x 3.04) + (2/12 x 3.16)]. The P/E ratio based on forecast EPS for the NTM will be 14.7 (45.00/3.06).

Rationale

✓ 14.7x

The forecast EPS for the next twelve months (NTM) will be EUR 3.06 [(10/12 x 3.04) + (2/12 x 3.16)]. The P/E ratio based on forecast EPS for the NTM will be 14.7 (45.00/3.06).

Rationale

✗ 15.2x

The forecast EPS for the next twelve months (NTM) will be EUR 3.06 [(10/12 x 3.04) + (2/12 x 3.16)]. The P/E ratio based on forecast EPS for the NTM will be 14.7 (45.00/3.06).

Question 15
L2R36TB-AC014-1512
LOS: LOS-8630
Lesson Reference: Lesson 7: International Considerations, Momentum Valuation Indicators, and Issues in Practice with Valuation Indicators
Difficulty: medium

Alpha Company and Beta Company are both exposed to their country's inflation rate of 10 percent and both have the same real required rate of return. Alpha can pass through 75 percent of inflation to consumers, but Beta only passes through 50 percent. Both companies pay out 100 percent of earnings as dividends and thus have no growth in earnings. Everything else equal, which is *most likely* correct with regard to their P/E ratios?

○ Beta will have a higher justified P/E ratio.

● Alpha will have a higher justified P/E ratio.

○ Inflation will not affect the justified P/E ratio for Alpha and Beta.

Rationale

✗ **Beta will have a higher justified P/E ratio.**

If two companies operate under the same inflation scenario and have the same real required rate of return, then the one that passes on a greater percentage of a price increase to earnings will be more valuable to equity shareholders. Therefore, the shareholders are willing to pay a greater price now per unit of current earnings because they will also receive higher earnings in the future and the present value of those earnings can justify a higher price.

Rationale

✓ **Alpha will have a higher justified P/E ratio.**

If two companies operate under the same inflation scenario and have the same real required rate of return, then the one that passes on a greater percentage of a price increase to earnings will be more valuable to equity shareholders. Therefore, the shareholders are willing to pay a greater price now per unit of current earnings because they will also receive higher earnings in the future and the present value of those earnings can justify a higher price.

Rationale

✗ **Inflation will not affect the justified P/E ratio for Alpha and Beta.**

If two companies operate under the same inflation scenario and have the same real required rate of return, then the one that passes on a greater percentage of a price increase to earnings will be more valuable to equity shareholders. Therefore, the shareholders are willing to pay a greater price now per unit of current earnings because they will also receive higher earnings in the future and the present value of those earnings can justify a higher price.

Question 16

L2R36TB-AC034-1512

LOS: LOS-8640

Lesson Reference: Lesson 7: International Considerations, Momentum Valuation Indicators, and Issues in Practice with Valuation Indicators

Difficulty: medium

Which of the following standardized unexpected earnings (SUE) scores indicate the *most* accurate analyst consensus estimates?

○ –4.25

● –2.76

○ 4.25

Rationale

✗ **–4.25**

The least absolute value for SUE indicates the least difference of forecast to actual results. Therefore, –2.76 would indicate the most accurate forecasts on a standardized miss basis.

Rationale

✓ **–2.76**

The least absolute value for SUE indicates the least difference of forecast to actual results. Therefore, –2.76 would indicate the most accurate forecasts on a standardized miss basis.

Rationale

✗ **4.25**

The least absolute value for SUE indicates the least difference of forecast to actual results. Therefore, –2.76 would indicate the most accurate forecasts on a standardized miss basis.

Question 17
L2R36TB-AC051-1512
LOS: LOS-8620
Lesson Reference: Lesson 6: Enterprise Value Multiples
Difficulty: medium

An analyst has determined the following 2012 financial data for Sacry Medical (millions USD except per share):

Interest expense	655
Depreciation & amortization	3,374
Taxes	725
Net income—continuing	1,424
Net income—transitory	(78)
Common shares outstanding	438
Share price	40
Cash + short-term investments	336
Market value of debt	1,235
Book value of debt	889
Common equity per balance sheet	14,892

If the enterprise value-to-EBITDA for a benchmark firm is 2.5, an analyst researching Sacry Medical would *most likely* consider the company to be:

○ undervalued.
○ fairly valued.
● overvalued.

Rationale
☒ **undervalued.**

To calculate EV, be sure to use market values for debt and equity:

$$\mathrm{EV} = d + p + c - (\mathrm{Cash} + \mathrm{STInv}) = 1{,}235 + (40 \times 438) - 336 = 18{,}419$$

To calculate EBITDA, add back interest, taxes, and depreciation & amortization to net income from continuing operations (not from transitory sources such as selling an asset at a loss):

$$\mathrm{EBITDA} \ = \mathrm{NI} + \mathrm{Int} + \mathrm{Tax} + \mathrm{Dep} = 1{,}424 + 655 + 725 + 3{,}374 = 6{,}178$$

Finally, we calculate the EV/EBITDA for Sacry Medical:

$$\mathrm{EV}/\mathrm{EBITDA} = 18{,}419/6{,}178 = 3.0$$

Sacry's calculated EV/EBITDA is above the benchmark multiple. Thus, an analyst would consider the company overvalued.

Rationale

✗ **fairly valued.**

To calculate EV, be sure to use market values for debt and equity:

$$\text{EV} = d + p + c - (\text{Cash} + \text{STInv}) = 1{,}235 + (40 \times 438) - 336 = 18{,}419$$

To calculate EBITDA, add back interest, taxes, and depreciation & amortization to net income from continuing operations (not from transitory sources such as selling an asset at a loss):

$$\text{EBITDA} \quad = \text{NI} + \text{Int} + \text{Tax} + \text{Dep} = 1{,}424 + 655 + 725 + 3{,}374 = 6{,}178$$

Finally, we calculate the EV/EBITDA for Sacry Medical:

$$\text{EV}/\text{EBITDA} = 18{,}419/6{,}178 = 3.0$$

Sacry's calculated EV/EBITDA is above the benchmark multiple. Thus, an analyst would consider the company overvalued.

Rationale

✓ **overvalued.**

To calculate EV, be sure to use market values for debt and equity:

$$\text{EV} = d + p + c - (\text{Cash} + \text{STInv}) = 1{,}235 + (40 \times 438) - 336 = 18{,}419$$

To calculate EBITDA, add back interest, taxes, and depreciation & amortization to net income from continuing operations (not from transitory sources such as selling an asset at a loss):

$$\text{EBITDA} \quad = \text{NI} + \text{Int} + \text{Tax} + \text{Dep} = 1{,}424 + 655 + 725 + 3{,}374 = 6{,}178$$

Finally, we calculate the EV/EBITDA for Sacry Medical:

$$\text{EV}/\text{EBITDA} = 18{,}419/6{,}178 = 3.0$$

Sacry's calculated EV/EBITDA is above the benchmark multiple. Thus, an analyst would consider the company overvalued.

Question 18
L2R36TB-AC010-1512
LOS: LOS-8530
Lesson Reference: Lesson 3: Normalized Earnings and the Earnings Yield
Difficulty: medium

An analyst wishing to determine the difference between EPS calculated using the historic average method versus the method of average ROE assembled the following data for Food Company (in millions EUR) after adjustment for non-recurring items:

	2008	**2009**	**2010**	**2011**	**2012**
EPS	3.01	3.17	3.32	3.40	2.68
BVPS	3.80	5.97	5.72	4.86	6.93
ROE	79.3%	53.1%	58.1%	69.9%	38.8%

The difference in EPS calculated by the method of average ROE and the method of historical average EPS is *closest* to:

● EUR 1.02
○ EUR 1.21
○ EUR 1.87

Rationale
✓ **EUR 1.02**

First, calculate the average of EPS (in EUR) and then the average ROE multiplied by book value:

	2008	**2009**	**2010**	**2011**	**2012**	**Avg**
EPS	3.01	%3.17	%3.32	%3.40	%2.68	3.12 (historical average)
BVPS	%3.80	%5.97	%5.72	%4.86	%6.93	
ROE	79.3%	53.1%	58.1%	69.9%	38.8%	59.8%

EPS using average ROE = 0.598 x 6.93 = 4.14. Thus, the difference in EPS between the two methods is EUR 1.02 (4.14 – 3.12).

Rationale
✗ **EUR 1.21**

First, calculate the average of EPS (in EUR) and then the average ROE multiplied by book value:

	2008	2009	2010	2011	2012	Avg
EPS	3.01	%3.17	%3.32	%3.40	%2.68	3.12 (historical average)
BVPS	%3.80	%5.97	%5.72	%4.86	%6.93	
ROE	79.3%	53.1%	58.1%	69.9%	38.8%	59.8%

EPS using average ROE = 0.598 x 6.93 = 4.14. Thus, the difference in EPS between the two methods is EUR 1.02 (4.14 – 3.12).

Rationale

❌ **EUR 1.87**

First, calculate the average of EPS (in EUR) and then the average ROE multiplied by book value:

	2008	2009	2010	2011	2012	Avg
EPS	3.01	%3.17	%3.32	%3.40	%2.68	3.12 (historical average)
BVPS	%3.80	%5.97	%5.72	%4.86	%6.93	
ROE	79.3%	53.1%	58.1%	69.9%	38.8%	59.8%

EPS using average ROE = 0.598 x 6.93 = 4.14. Thus, the difference in EPS between the two methods is EUR 1.02 (4.14 – 3.12).

Question 19

L2EQ-PQ3507-1411

LOS: LOS-8520

Lesson Reference: Lesson 2: Price Multiples Based on the Method of Comparables

Difficulty: medium

The stock of Rex Ltd. is currently trading at $42. The company just reported sales amounting to $18 million and has 3 million shares outstanding. Given that the benchmark P/S multiple is 7, the stock is *most likely*:

○ Undervalued

● Fairly valued

○ Overvalued

Rationale

✓ **This Answer is Correct**

Sales per share = $18m / 3m = $6

P/S ratio = 42 / 6 = 7

Since the stock's P/S multiple is the same as that of the benchmark, it is said to be fairly valued.

Question 20
L2EQ-TB0031-1412
LOS: LOS-8520
Lesson Reference: Lesson 2: Price Multiples Based on the Method of Comparables
Difficulty: medium

A company presented the following data:

	2012	2013	2014	2015
EPS ($)	0.56	0.89	0.56	0.23
BVPS ($)	2.0	2.5	3.0	3.5
ROE	20%	20%	15%	22%

Using the method of average return on equity, which of the following is closest to the normalized earnings per share of the company?

○ $0.56.
○ $0.62.
● $0.67.

Rationale

✓ **This Answer is Correct**

The average ROE during the four years is (20% + 20% + 15% + 22%) / 4 = 19.25%.

Applying this to the current BVPS gives normalized earnings of 0.1925 3.5 = 0.67.

Question 21
L2R36TB-AC048-1512
LOS: LOS-8510
Lesson Reference: Lesson 2: Price Multiples Based on the Method of Comparables
Difficulty: medium

An analyst would be *most likely* to use price-to-sales (P/S) rather than price-toearnings (P/E) to evaluate a subject company when benchmark firms:

○ have substantially similar required returns and growth rates.
● have widely divergent expense recognition practices.
○ use vastly different amounts of leverage.

Rationale
✗ **have substantially similar required returns and growth rates.**

P/S does not include management's potentially dubious estimates or manipulation of accounting rules for expenses. However, it does include management's revenue recognition practices.

Rationale
✓ **have widely divergent expense recognition practices.**

P/S does not include management's potentially dubious estimates or manipulation of accounting rules for expenses. However, it does include management's revenue recognition practices.

Rationale
✗ **use vastly different amounts of leverage.**

P/S does not include management's potentially dubious estimates or manipulation of accounting rules for expenses. However, it does include management's revenue recognition practices.

Question 22

L2R36TB-AC037-1512

LOS: LOS-8660

Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)

Difficulty: medium

Devon Electronics has a price-to-earnings multiple similar to the industry average. However, it has a much higher debt-to-equity ratio than its competitors. Devon Electronics' valuation could *best* be described as:

- ● overvalued.
- ○ undervalued.
- ○ fairly valued.

Rationale

✓ **overvalued.**

Devon is probably overvalued because it has a similar price-to-earnings ratio with a much higher level of debt. A company with more debt will likely have greater financial risk and, everything else being equal, investors will demand a higher required return. A higher required return will lead to a greater discount rate for cash flows and a lower justified P/E multiple.

Rationale

✗ **undervalued.**

Devon is probably overvalued because it has a similar price-to-earnings ratio with a much higher level of debt. A company with more debt will likely have greater financial risk and, everything else being equal, investors will demand a higher required return. A higher required return will lead to a greater discount rate for cash flows and a lower justified P/E multiple.

Rationale

✗ **fairly valued.**

Devon is probably overvalued because it has a similar price-to-earnings ratio with a much higher level of debt. A company with more debt will likely have greater financial risk and, everything else being equal, investors will demand a higher required return. A higher required return will lead to a greater discount rate for cash flows and a lower justified P/E multiple.

Question 23
L2EQ-TBB220-1412
LOS: LOS-8590
Lesson Reference: Lesson 5: The P/E-Growth Ratio and Using Multiples to Determine Terminal Value
Difficulty: medium

A potentially undervalued company is *most likely* to exhibit which of the following attributes?

○ Low beta, high PEG, and low forward PE.
● Low beta, low PEG, and low forward PE.
○ High beta, low PEG, and low forward PE.

Rationale

✓ **This Answer is Correct**

Companies that are undervalued relative to their peer group or industry will exhibit low forward PE multiples and low PEG (PE to growth) ratios. They will also exhibit a relatively low beta, which will represent a confidence in the growth forecast in the PEG ratio.

Question 24

L2EQ-PQ3528-1411
LOS: LOS-8560
Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)
Difficulty: medium

Within the context of the constant growth dividend discount model, which of the following would *most* likely result in an increase in a company's P/E ratio?

○ An increase in the stock's beta.
● An increase in the growth rate of dividends.
○ An increase in the equity risk premium.

Rationale

✓ **This Answer is Correct**

An increase in the growth rate of dividends would result in a higher P/E. An increase in systematic risk and/or an increase in the equity risk premium would be expected to lower the stock's P/E.

Question 25

L200-PQ0032-1412
LOS: LOS-8610
Lesson Reference: Lesson 6: Enterprise Value Multiples
Difficulty: medium

Which of the following statements about free cash flow to equity (FCFE) relative to cash flow from operations (CFO) is untrue?

- ○ It is calculated as CFO – FCInv + Net borrowing.
- ○ Theoretically, it is the most suitable definition for free cash flow.
- ● It may be less volatile than CFO.

Rationale

✓ **This Answer is Correct**

Free cash flow to equity (FCFE) may be more volatile than cash flow from operations (CFO).

Question 26

L200-PQ0031-1412

LOS: LOS-8500

Lesson Reference: Lesson 1: Introduction: The Method of Comparables versus the Method of Forecasted Fundamentals

Difficulty: medium

If the justified price multiple for a stock is larger than its actual multiple, which of the following is true?

○ The stock is overvalued.

● The stock is undervalued.

○ It cannot be determined.

Rationale

✓ **This Answer is Correct**

If the justified price multiple is larger than the actual current multiple of the stock, the stock is undervalued.

Question 27
L2R36TB-AC020-1512
LOS: LOS-8520
Lesson Reference: Lesson 2: Price Multiples Based on the Method of Comparables
Difficulty: medium

An analyst has gathered selected year-end balance sheet information (all amounts in millions) for Big Cereal:

Total assets	$11,050
Total liabilities	$9,500
Preferred equity	$100
Number of shares	382

Given a share price of $40.00, Big Cereal's price-to-book value (P/B) multiple will be *closest to*:

- ○ $8.50
- ● $10.50
- ○ $12.50

Rationale

✗ **$8.50**

First calculate book value of common shareholders' equity (in USD millions):

$$\begin{aligned}\text{Common equity} &= \text{Total assets} - \text{Total liabilities} - \text{Preferred equity}\\ &= \$11{,}050 - 9{,}500 - 100 = \$1{,}450\end{aligned}$$

Next, calculate book value per share (BVPS), which is $3.796 (1,450/382).

Finally, the P/B = $40.00/$3.796 = 10.5x.

Rationale

✓ **$10.50**

First calculate book value of common shareholders' equity (in USD millions):

$$\begin{aligned}\text{Common equity} &= \text{Total assets} - \text{Total liabilities} - \text{Preferred equity}\\ &= \$11{,}050 - 9{,}500 - 100 = \$1{,}450\end{aligned}$$

Next, calculate book value per share (BVPS), which is $3.796 (1,450/382).

Finally, the P/B = $40.00/$3.796 = 10.5x.

Rationale

✗ **$12.50**

First calculate book value of common shareholders' equity (in USD millions):

$$\begin{aligned}\text{Common equity} &= \text{Total assets} - \text{Total liabilities} - \text{Preferred equity} \\ &= \$11{,}050 - 9{,}500 - 100 = \$1{,}450\end{aligned}$$

Next, calculate book value per share (BVPS), which is $3.796 (1,450/382).

Finally, the P/B = $40.00/$3.796 = 10.5x.

Question 28

L2R36TB-AC032-1512

LOS: LOS-8620

Lesson Reference: Lesson 6: Enterprise Value Multiples

Difficulty: medium

The market values of Minimum Dynamics' debt and shareholder equity are $34,856 and $17,582 million, respectively. The most recent balance sheet shows cash and short-term investments of $5,490 million and minority interest of $760 million. Based on annual sales of $65,875 million, Minimum Dynamics' enterprise value to sales is *closest to*:

○ 0.50

● 0.75

○ 1.00

Rationale

✗ **0.50**

Minimum Dynamics' EV/S multiple is:

$$\text{EV/S} = \frac{d+p+c-(\text{Cash}+\text{STInv})+\text{Minority interest}}{\text{Sales}} = \frac{\$34{,}856+\$17{,}582-\$5{,}490+}{\$65{,}875}$$

Rationale

✓ **0.75**

Minimum Dynamics' EV/S multiple is:

$$\text{EV/S} = \frac{d+p+c-(\text{Cash}+\text{STInv})+\text{Minority interest}}{\text{Sales}} = \frac{\$34{,}856+\$17{,}582-\$5{,}490+}{\$65{,}875}$$

Rationale

✗ **1.00**

Minimum Dynamics' EV/S multiple is:

$$\text{EV/S} = \frac{d+p+c-(\text{Cash}+\text{STInv})+\text{Minority interest}}{\text{Sales}} = \frac{\$34{,}856+\$17{,}582-\$5{,}490+}{\$65{,}875}$$

Question 29

L2EQ-PQ3502-1411
LOS: LOS-8520
Lesson Reference: Lesson 2: Price Multiples Based on the Method of Comparables
Difficulty: medium

On December 31, 2011, the stock of Gamma Corporation was trading at $52.50. The following information is also available:

Expected price at the end of next year = $56.25

EPS for 2011 = $4.38

Expected EPS in the first quarter of 2012 = $0.80

Expected EPS in the second quarter of 2012 = $1.15

Expected EPS in the third quarter of 2012 = $1.40

Expected EPS in the fourth quarter of 2012 = $1.65

The company's trailing and leading P/E ratios are *closest to*:

	Trailing P/E	Leading P/E
A	11.99	11.25
B	11.99	10.50
C	10.56	11.25

○ Row A
● Row B
○ Row C

Rationale

✓ **This Answer is Correct**

Trailing P/E ratio = Current stock price / EPS$_{2011}$

Trailing P/E ratio = 52.50 / 4.38 = 11.9863

Leading P/E ratio = Current stock price / EPS$_{2012}$

Leading P/E ratio = 52.50 / (0.80 + 1.15 + 1.40 + 1.65) = 10.50

Question 30

L2EQ-TBX114-1502

LOS: LOS-8650

Lesson Reference: Lesson 7: International Considerations, Momentum Valuation Indicators, and Issues in Practice with Valuation Indicators

Difficulty: easy

An investor holds an equally weighted portfolio of three stocks with P/E multiples of 6, 10, and 14. The portfolio P/E value will be *closest* to:

● 8.9.

○ 9.4.

○ 10.

Rationale

✓ **This Answer is Correct**

The P/E of a portfolio is calculated using the harmonic mean. In this case, the P/E of the portfolio will be 3 / ((1 / 6) + (1 / 10) + (1 / 14)) = 8.87.

Question 31

L2EQ-TB0033-1412

LOS: LOS-8550

Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)

Difficulty: medium

For a company with less than 100% inflation pass-through, an increase in the inflation rate in the economy will *most likely* lead to the company P/E ratio:

● Falling.

○ Rising.

○ Remaining the same.

Rationale

✓ **This Answer is Correct**

With less than 100% pass-through, the P/E ratio of a company will be inversely related to the inflation rate.

Question 32

L200-PQ0033-1412

LOS: LOS-8620

Lesson Reference: Lesson 6: Enterprise Value Multiples

Difficulty: medium

Which of the following items is not a component of the enterprise value equation?

○ Market value of common equity

○ Market value of debt

● Value of long-term investments

Rationale

✓ **This Answer is Correct**

The value of cash and short-term investments is included in the enterprise value equation, not long-term investments.

Question 33

L2EQ-TB0027-1412

LOS: LOS-8500

Lesson Reference: Lesson 1: Introduction: The Method of Comparables versus the Method of Forecasted Fundamentals

Difficulty: medium

An analyst has used the residual income valuation model to estimate a fair value for a security of $34 per share. The company currently has a net book value of $350 million, has 10 million shares outstanding, and the shares are currently trading at £30 per share. Which of the following statements regarding this analysis is *most likely* to be correct?

● The justified P/B is 0.97 based on forecasted fundamentals.

○ The justified P/B is 1.03 based on forecasted fundamentals.

○ The justified P/B is 0.97 based on the method of comparables.

Rationale

✓ **This Answer is Correct**

The company has book value per share of $350 million/10 million = $35. Fair P/B of the company based on the fair value estimated by the analyst is therefore $34/$35 = 0.97. This is based on forecasted fundamentals since the analyst has used a fundamental model to estimate fair value and derive an associated fair P/B. The method of comparables uses instead a reference multiple derived from a similar security or industry average to arrive at a justified multiple.

Question 34

L2EQ-TBB221-1412

LOS: LOS-8600

Lesson Reference: Lesson 5: The P/E-Growth Ratio and Using Multiples to Determine Terminal Value

Difficulty: medium

A company is expected to experience supernormal growth for the next five years, at which point its valuation is expected to converge to the fundamental price-to-book ratio implied by the Gordon growth model. An analyst has estimated that in five years' time the stable return on equity of the company will be 6%, the required return on equity will be 6%, and the long-term sustainable growth rate of the company will be 3%. If the expected book value per share in five years' time is $30, which of the following values is closest to the terminal value of the share at time 5?

○ $15.

○ $20.

● $30.

Rationale

✓ **This Answer is Correct**

According to the fundamental price-to-book ratio implied by the Gordon growth model, a company that earns a return on equity equal to its required return on equity should have a price-to-book ratio of 1. This implies the share price will be $30 in five years' time.

Question 35

L2R36TB-AC035-1512

LOS: LOS-8530

Lesson Reference: Lesson 3: Normalized Earnings and the Earnings Yield

Difficulty: medium

Assume a complete business cycle for a subject company's industry takes four years. The last four years' data have shown an average EPS over the cycle of £4.58. Which of the following *best* describes this process of determining EPS to use in fundamental analysis?

○ Adjusting.

● Normalizing.

○ De-seasonalizing.

Rationale

✗ **Adjusting.**

Normalizing describes the process of removing the effects of a business cycle on a subject company's earnings. This particular method is known as historical average EPS.

Rationale

✓ **Normalizing.**

Normalizing describes the process of removing the effects of a business cycle on a subject company's earnings. This particular method is known as historical average EPS.

Rationale

✗ **De-seasonalizing.**

Normalizing describes the process of removing the effects of a business cycle on a subject company's earnings. This particular method is known as historical average EPS.

Question 36
L2EQ-PQ3516-1411
LOS: LOS-8560
Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)
Difficulty: medium

Daniela is evaluating the stock of Tamara Company, which is trading at a price of $51. She gathers the following information regarding the company:

Trailing FCFE = $2.30 per share

Expected growth rate in FCFE = 6%

Required rate of return = 11%

Trailing cash flow (earnings plus non-cash charges) = $5.60 per share

Based on the justified P/CF ratio using earnings plus non-cash charges as the definition of CF, the stock is *most likely*:

○ Undervalued
○ Fairly valued
● Overvalued

Rationale

✓ **This Answer is Correct**

$V_0 = [FCFE_0 \times (1 + g)] / (r - g)$

$V_0 = (2.30 \times 1.06) / (0.11 - 0.06) = \$48.76$

P/CF multiple based on fundamentals = 48.76 / 5.60 = 8.71

P/CF multiple based on market price = 51 / 5.60 = 9.11

Since the P/CF multiple based on market price is greater than that based on fundamentals, the stock is overvalued.

Question 37
L2R36TB-AC030-1512
LOS: LOS-8620
Lesson Reference: Lesson 6: Enterprise Value Multiples
Difficulty: medium

Demetri, Inc. has core operating EBITDA of EUR 2.59 billion. The company's debt is recorded on the balance sheet at EUR 5.03 billion and it is trading in the market at EUR 6.08 billion. The balance sheet also reflects common equity of EUR 1.25 billion and cash and short-term investments are EUR 0.48 billion. In the marketplace, the common shares have a total market capitalization of EUR 2.42 billion. The company's EV/EBITDA is *closest to*:

○ 2.2
● 3.1
○ 3.3

Rationale

✗ **2.2**

EV/EBITDA is:

$$\frac{\text{EV}}{\text{EBITDA}} = \frac{d + p + c - (\text{Cash} + \text{STInv})}{\text{EBITDA}} = \frac{6.08 + 0 + 2.42 - 0.48}{2.59} = 3.1$$

Rationale

✓ **3.1**

EV/EBITDA is:

$$\frac{\text{EV}}{\text{EBITDA}} = \frac{d + p + c - (\text{Cash} + \text{STInv})}{\text{EBITDA}} = \frac{6.08 + 0 + 2.42 - 0.48}{2.59} = 3.1$$

Rationale

✗ **3.3**

EV/EBITDA is:

$$\frac{\text{EV}}{\text{EBITDA}} = \frac{d + p + c - (\text{Cash} + \text{STInv})}{\text{EBITDA}} = \frac{6.08 + 0 + 2.42 - 0.48}{2.59} = 3.1$$

Question 38
L2R36TB-AC046-1512
LOS: LOS-8560
Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)
Difficulty: medium

Davis Inc. and Elmore Company have identical price-to-book ratios. Davis has return on equity (ROE) of 18.0 percent, required return of 9.5 percent, and growth of 5.0 percent. Elmore has ROE of 18.0 percent, required return of 8.5 percent, and growth of 4.0 percent. An analyst selecting between these firms will *most likely*:

○ prefer Davis.

● prefer Elmore.

○ be indifferent between Davis and Elmore.

Rationale

✗ **prefer Davis.**

The analyst will prefer Elmore because it has a higher justified P/B. The justified P/B for each company is calculated as follows:

$$\text{Davis' justified P/B} = \frac{P_0}{B_0} = \frac{\text{ROE}-g}{r_c-g} = \frac{18.0-5.0}{9.5-5.0} = 2.9$$

$$\text{Elmore's justified P/B} = \frac{P_0}{B_0} = \frac{\text{ROE}-g}{r_c-\text{g}} = \frac{18.0-4.0}{8.5-4.0} = 3.1$$

The firms are trading at the same P/B, but Elmore has a higher justified P/B. Therefore, the analyst would most likely prefer Elmore.

Rationale

✓ **prefer Elmore.**

The analyst will prefer Elmore because it has a higher justified P/B. The justified P/B for each company is calculated as follows:

$$\text{Davis' justified P/B} = \frac{P_0}{B_0} = \frac{\text{ROE}-g}{r_c-g} = \frac{18.0-5.0}{9.5-5.0} = 2.9$$

$$\text{Elmore's justified P/B} = \frac{P_0}{B_0} = \frac{\text{ROE}-g}{r_c-\text{g}} = \frac{18.0-4.0}{8.5-4.0} = 3.1$$

The firms are trading at the same P/B, but Elmore has a higher justified P/B. Therefore, the analyst would most likely prefer Elmore.

Rationale

✗ **be indifferent between Davis and Elmore.**

The analyst will prefer Elmore because it has a higher justified P/B. The justified P/B for each company is calculated as follows:

$$\text{Davis' justified P/B} = \frac{P_0}{B_0} = \frac{\mathrm{ROE}-g}{r_c-g} = \frac{18.0-5.0}{9.5-5.0} = 2.9$$

$$\text{Elmore's justified P/B} = \frac{P_0}{B_0} = \frac{\mathrm{ROE}-g}{r_c-\mathrm{g}} = \frac{18.0-4.0}{8.5-4.0} = 3.1$$

The firms are trading at the same P/B, but Elmore has a higher justified P/B. Therefore, the analyst would most likely prefer Elmore.

Question 39
L2R36TB-AC018-1512
LOS: LOS-8580
Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)
Difficulty: medium

An analyst is comparing data for three companies with similar characteristics (i.e., a peer group):

	ForwardP/E	**Beta**
Tri-State	14.0	1.05
Esmeralda	13.5	0.95
Wickers	13.8	1.00
Group mean	13.8	1.00

An analyst pricing shares for a subject company with comparable growth but a lower beta. If the analyst includes the subject company in calculating the mean forward P/E for the group, the analyst will *most likely* calculate a new mean forward P/E for the group that is:

○ lower.
● higher.
○ unchanged.

Rationale
✗ **lower.**
Everything else equal, a company with lower risk (as evidenced by a lower beta) will command a higher price and a higher forward P/E ratio than its peers. By including the subject company in the calculation, the mean forward P/E for the group will most likely rise.

Rationale
✓ **higher.**
Everything else equal, a company with lower risk (as evidenced by a lower beta) will command a higher price and a higher forward P/E ratio than its peers. By including the subject company in the calculation, the mean forward P/E for the group will most likely rise.

Rationale
✗ **unchanged.**
Everything else equal, a company with lower risk (as evidenced by a lower beta) will command a higher price and a higher forward P/E ratio than its peers. By including the subject company in the calculation, the mean forward P/E for the group will most likely rise.

Question 40
L2R36TB-ITEMSET-AC004-1512
LOS: LOS-8550
LOS: LOS-8650
LOS: LOS-8560
Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)
Difficulty: N/A

Use the following information to answer the next 3 questions:

Danielle Riback is analyzing Three W, a large multi-division industrial firm located in Wisconsin, for possible inclusion in a portfolio of value stocks. Due to the industrial nature of its products, Three W experienced very slow sales growth from 2007 – 2012 and actually experienced sales declines in 2009, with flat sales from 2011 to 2012. Management considers the period from 2007 to 2012 to be a complete business cycle, although the economy has not yet recovered to 2007 levels. Riback believes the company can earn a 27.0 percent return on ROE and grow at a 6.0 percent rate over the long term. She has further estimated that the required return for equity is 9.0 percent.

Three W incurred a large amount of debt in 2008 to repurchase its shares. Three W also reacquired more equity shares than it issued in 2011 and 2012. Selected financial Information for Three W appears in Exhibit 1, with additional data in Exhibit 2.

Exhibit 1 – Three W: Financial Data (Millions of USD)

	2012	2011	2010	2009	2008	2007
Sales	$29,904	$29,611	$29,662	$23,123	$25,269	$24,462
Earnings to common shareholders	4,719	2,801	4,257	3,193	3,460	4,096
Ending book value of common equity	18,040	15,862	16,017	13,302	10,304	12,072

Exhibit 2 – Three W: Additional Data (Share data in millions of shares)

	2012	2011	2010	2009	2008	2007
Debt-to-total capital	25%	25%	25%	30%	39%	29%
Stock price	$92.85	$81.73	$86.30	$82.67	$57.54	$84.32
Common shares outstanding (period end)	687.1	695.0	712.0	710.6	693.5	709.2
Weighted average common shares outstanding (WACSO) – basic	693.9	708.5	713.7	700.5	699.2	718.3
WACSO – diluted	703.3	719.0	725.5	706.7	707.2	732.0

Riback discusses her analysis with her supervisor, Bob Montgomery, who will present the case for or against inclusion in the portfolio to the firm's investment committee. During her meeting with Montgomery, Riback discloses that she calculated price-to-earnings and price-to-sales (P/S) ratios for Three W, but prefers the price-to-book value (P/BV) multiple for the comparison to the benchmark. She justifies her decision with the following three reasons:

> Reason 1: P/BV is more stable than price multiples that use sales or earnings.
> Reason 2: P/BV is meaningful when a firm's earnings are zero or negative.
> Reason 3: P/BV is better at reflecting the market's perception of the firm's underlying return for long-term investors.

Montgomery suggests that Riback compare Three W's current P/BV against its historical P/BV calculated using the harmonic mean, simple average, and median. Montgomery also suggests that Riback calculate the fair value (justified) for Three W's P/BV based on the forecast fundamentals method.

i.

Riback's use of the P/BV multiple is *best* supported by:

○ Reason 1.

○ Reason 2.

● Reason 3.

Rationale

✓ **This Answer is Correct**

Although growth investors will be reluctant to purchase a cyclical company for short-term earnings in a slowly recovering economy, a value investor might be more inclined to purchase the firm based on potential returns on assets, assuming stable liabilities. Studies have shown that low P/BV more closely relates to potential returns than P/E ratios. Reason 1 will tend to be true when the subject company has not had substantial shifts in debt-to-total capital, including share issuance, repurchase, and dilution. Reason 2 does not apply because the firm has not experienced zero or negative earnings.

Rationale

✓ **This Answer is Correct**

Although growth investors will be reluctant to purchase a cyclical company for short-term earnings in a slowly recovering economy, a value investor might be more inclined to purchase the firm based on potential returns on assets, assuming stable liabilities. Studies have shown that low P/BV more closely relates to potential returns than P/E ratios. Reason 1 will tend to be true when the subject company has not had substantial shifts in debt-to-total capital, including share issuance, repurchase, and dilution. Reason 2 does not apply because the firm has not experienced zero or negative earnings.

Rationale

✓ **This Answer is Correct**

Although growth investors will be reluctant to purchase a cyclical company for short-term earnings in a slowly recovering economy, a value investor might be more inclined to purchase the firm based on potential returns on assets, assuming stable liabilities. Studies have shown that low P/BV more closely relates to potential returns than P/E ratios. Reason 1 will tend to be true when the subject company has not had substantial shifts in debt-to-total capital, including share issuance, repurchase, and dilution. Reason 2 does not apply because the firm has not experienced zero or negative earnings.

ii.

How much different is Three W's 2012 P/BV relative to its harmonic mean for 2007–2012?

● Less by 0.44.

○ Greater by 023.

○ Greater by 0.37.

Rationale

✖ **This Answer is Incorrect**

Price-to-book value over the period is:

	2012	2011	2010	2009	2008	2007
Stock price	$92.85	$81.73	$86.30	$82.67	$57.54	$84.32
BV common equity	18,040	15,862	16,017	13,302	10,304	12,072
CSO (end of period)	687.1	695.0	712.0	710.6	693.5	709.2
BVPS	26.26	22.82	22.50	18.72	14.86	17.02
P/BV	3.54	3.58	3.84	4.42	3.87	4.95

$$\begin{aligned} \mathrm{X_H} &= \frac{n}{\sum_{\mathrm{i}=1}^{\mathrm{n}}\left(\frac{1}{\mathrm{X_i}}\right)} = \frac{6}{\frac{1}{3.54}+\frac{1}{3.58}+\frac{1}{3.84}+\frac{1}{4.42}+\frac{1}{3.87}+\frac{1}{4.95}} \\ &= 3.98 \end{aligned}$$

The 2012 P/BV is less than the harmonic mean by 0.44 (3.54 – 3.98). Note also that the harmonic mean will always be less than the arithmetic mean, unless all observations are equal.

Rationale

✖ **This Answer is Incorrect**

Price-to-book value over the period is:

	2012	2011	2010	2009	2008	2007
Stock price	$92.85	$81.73	$86.30	$82.67	$57.54	$84.32

	2012	2011	2010	2009	2008	2007
BV common equity	18,040	15,862	16,017	13,302	10,304	12,072
CSO (end of period)	687.1	695.0	712.0	710.6	693.5	709.2
BVPS	26.26	22.82	22.50	18.72	14.86	17.02
P/BV	3.54	3.58	3.84	4.42	3.87	4.95

$$\begin{aligned} \mathrm{X_H} &= \frac{n}{\sum_{\mathrm{i}=1}^{\mathrm{n}}\left(\frac{1}{\mathrm{X_i}}\right)} = \frac{6}{\frac{1}{3.54}+\frac{1}{3.58}+\frac{1}{3.84}+\frac{1}{4.42}+\frac{1}{3.87}+\frac{1}{4.95}} \\ &= 3.98 \end{aligned}$$

The 2012 P/BV is less than the harmonic mean by 0.44 (3.54 – 3.98). Note also that the harmonic mean will always be less than the arithmetic mean, unless all observations are equal.

Rationale

✖ This Answer is Incorrect

Price-to-book value over the period is:

	2012	2011	2010	2009	2008	2007
Stock price	$92.85	$81.73	$86.30	$82.67	$57.54	$84.32
BV common equity	18,040	15,862	16,017	13,302	10,304	12,072
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BVPS	26.26	22.82	22.50	18.72	14.86	17.02
P/BV	3.54	3.58	3.84	4.42	3.87	4.95

$$\begin{aligned} \mathrm{X_H} &= \frac{n}{\sum_{\mathrm{i}=1}^{\mathrm{n}}\left(\frac{1}{\mathrm{X_i}}\right)} = \frac{6}{\frac{1}{3.54}+\frac{1}{3.58}+\frac{1}{3.84}+\frac{1}{4.42}+\frac{1}{3.87}+\frac{1}{4.95}} \\ &= 3.98 \end{aligned}$$

The 2012 P/BV is less than the harmonic mean by 0.44 (3.54 – 3.98). Note also that the harmonic mean will always be less than the arithmetic mean, unless all observations are equal.

iii.

Based on Three W's justified P/BV calculated by the forecast fundamentals method using ROE from 2007–2012, its current P/BV could *best* be described as:

○ overvalued.

● undervalued.

○ fairly valued.

Rationale

✖ **This Answer is Incorrect**

The justified P/BV is calculated as follows:

$$\frac{\mathrm{P}_0}{\mathrm{B}_0} = \frac{\mathrm{ROE} - g}{r_c - g} = \frac{0.27 - 0.06}{0.09 - 0.06} = 7.0$$

Three W's shares are undervalued based on the outcome that Three W's justified P/BV based on forecast fundamentals method is greater than the company's current (2012) P/BV of 3.5. The 3.5 is calculated as follows:

$$\frac{\mathrm{P}_{2012}}{\mathrm{B}_{2012}} = \frac{92.85}{18{,}040/687.1} = 3.5$$

Rationale

✖ **This Answer is Incorrect**

The justified P/BV is calculated as follows:

$$\frac{\mathrm{P}_0}{\mathrm{B}_0} = \frac{\mathrm{ROE} - g}{r_c - g} = \frac{0.27 - 0.06}{0.09 - 0.06} = 7.0$$

Three W's shares are undervalued based on the outcome that Three W's justified P/BV based on forecast fundamentals method is greater than the company's current (2012) P/BV of 3.5. The 3.5 is calculated as follows:

$$\frac{\mathrm{P}_{2012}}{\mathrm{B}_{2012}} = \frac{92.85}{18{,}040/687.1} = 3.5$$

Rationale

✖ **This Answer is Incorrect**

The justified P/BV is calculated as follows:

$$\frac{\mathrm{P}_0}{\mathrm{B}_0} = \frac{\mathrm{ROE} - g}{r_c - g} = \frac{0.27 - 0.06}{0.09 - 0.06} = 7.0$$

Three W's shares are undervalued based on the outcome that Three W's justified P/BV based on forecast fundamentals method is greater than the company's current (2012) P/BV of 3.5. The 3.5 is calculated as follows:

$$\frac{\mathrm{P}_{2012}}{\mathrm{B}_{2012}} = \frac{92.85}{18{,}040/687.1} = 3.5$$

Question 41
L2R36TB-AC036-1512
LOS: LOS-8510
Lesson Reference: Lesson 2: Price Multiples Based on the Method of Comparables
Difficulty: medium

A manufacturing startup had negative earnings over the last three years, but had operating margins in line with benchmark companies for its industry. An analyst evaluating this company by the method of comparables would *most likely* determine relative valuation for this company using:

○ price-to-earnings (P/E).
○ price-to-FCFE (P/FCFE).
● price-to-sales (P/S).

Rationale

✗ **price-to-earnings (P/E).**

The analyst would most likely use the P/S multiple for this company because price-to-earnings and P/FCFE would likely not be meaningful with negative earnings. In addition, the operating profit margin would suggest that sales translate to operating earnings in line with industry percentages, although the other measures might be affected by less favorable tax rates due to the startup losses.

Rationale

✗ **price-to-FCFE (P/FCFE).**

The analyst would most likely use the P/S multiple for this company because price-to-earnings and P/FCFE would likely not be meaningful with negative earnings. In addition, the operating profit margin would suggest that sales translate to operating earnings in line with industry percentages, although the other measures might be affected by less favorable tax rates due to the startup losses.

Rationale

✓ **price-to-sales (P/S).**

The analyst would most likely use the P/S multiple for this company because price-to-earnings and P/FCFE would likely not be meaningful with negative earnings. In addition, the operating profit margin would suggest that sales translate to operating earnings in line with industry percentages, although the other measures might be affected by less favorable tax rates due to the startup losses.

Question 42
L2EQ-PQ3522-1411
LOS: LOS-8600
Lesson Reference: Lesson 5: The P/E-Growth Ratio and Using Multiples to Determine Terminal Value
Difficulty: medium

Alex is evaluating the stock of Surabo Electronics on 1 January 2012. He gathers the following information:

Average dividend payout ratio for companies in the same industry = 0.6

Required rate of return = 12%

Industry average ROE = 0.15

EPS forecast for the year 2016 = $3.15

Based on the given information, the stock's terminal value at the end of 2016 is *closest to*:

○ $31.50
○ $68.70
● $33.40

Rationale
✓ **This Answer is Correct**

$P_{2016} = D_{2017} / (r - g)$

$D_{2016} = E_{2016} \times$ Payout ratio $= \$3.15 \times 0.6 = \$1.89$

Growth rate = Retention rate × ROE = $(1 - 0.6) \times 0.15 = 6\%$

Therefore, $P_{2016} = (1.89 \times 1.06) / (0.12 - 0.06) = \$33.39$

Question 43

L2R36TB-AC027-1512
LOS: LOS-8520
Lesson Reference: Lesson 2: Price Multiples Based on the Method of Comparables
Difficulty: medium

In its previous annual report, Diamond Company had net income of $1,400 million, and non-cash charges of $300 million. There were 110 million shares outstanding. Diamond's share price was $40 per share at the beginning of the next accounting cycle. An analyst is calculating the Diamond's price-to-cash flow (P/CF) multiple and her firm defines cash flow as defined as being earnings plus non-cash charges. The P/CF multiple she will calculate is *closest to*:

● 2.6
○ 4.0
○ 4.8

Rationale

✓ **2.6**

Diamond's cash flow (CF) and P/CF are calculated as follows:

$$\begin{aligned} \text{CF} &= \text{Nl} + \text{Non} - \text{cash charges} = 1{,}400 + 300 = \$1{,}700 \text{ or } \$15.45 \left(\frac{1{,}700}{110}\right) \text{ per share} \\ \text{P/CF} &= \frac{\$40.00}{\$15.45} \approx 2.6 \end{aligned}$$

Rationale

✗ **4.0**

Diamond's cash flow (CF) and P/CF are calculated as follows:

$$\begin{aligned} \text{CF} &= \text{Nl} + \text{Non} - \text{cash charges} = 1{,}400 + 300 = \$1{,}700 \text{ or } \$15.45 \left(\frac{1{,}700}{110}\right) \text{ per share} \\ \text{P/CF} &= \frac{\$40.00}{\$15.45} \approx 2.6 \end{aligned}$$

Rationale

✗ **4.8**

Diamond's cash flow (CF) and P/CF are calculated as follows:

$$\begin{aligned} \text{CF} &= \text{Nl} + \text{Non} - \text{cash charges} = 1{,}400 + 300 = \$1{,}700 \text{ or } \$15.45 \left(\frac{1{,}700}{110}\right) \text{ per share} \\ \text{P/CF} &= \frac{\$40.00}{\$15.45} \approx 2.6 \end{aligned}$$

Question 44

L2EQ-TBB222-1412
LOS: LOS-8610
Lesson Reference: Lesson 6: Enterprise Value Multiples
Difficulty: medium

Tim Hodges, CFA, is an equity analyst using the enterprise value to EBITA (EV/EBTIDA) multiple to value companies in the automotive sector. He extracts the following data from the 10-Q report of Nixan Motors Corp., a US manufacturer of domestic vehicles:

	$(m)
Cash and cash equivalents	5,060
Total assets	14,972
Current liabilities	3,726
Long-term liabilities	1,823
Total liabilities	5,549
Common stock	12
Total shareholder's equity	9,423
Net income	1,721
Interest expense	18
Income tax expense	347
Depreciation and amortization	925

Nixan has 248 million common shares outstanding. Hodges assumes that all long-term liabilities are long-term debt related and that the portion of current liabilities related to the current portion of long-term debt is $165 million. The most recent closing company share price is $83.50.

Which of the following multiples is closest to the EV/EBITDA ratio for Nixan Motors?

○ 3.3x.
● 5.9x.
○ The EV/EBITDA cannot be calculated since EV is negative for this company.

Rationale

✓ **This Answer is Correct**

The enterprise value (EV) for the company is equal to the market value of debt plus the market value of equity minus the cash balance of the company. Hence, in this case:

EV = ($1,823 million + $165 million) + (248 million × $83.50) – $5,060 million = $17,636 million.

The EBITDA of the company can be calculated as net income plus tax expense plus interest expense plus depreciation and amortization, which is:

EBITDA = $1,721 million + $18 million + $347 million + $925 million = $3,011 million.

Hence, the EV/EBITDA ratio is 17,636 / 3,011 = 5.9x.

Question 45

L2R36TB-AC031-1512

LOS: LOS-8620

Lesson Reference: Lesson 6: Enterprise Value Multiples

Difficulty: medium

A company has a higher EV/EBITDA multiple than the mean or median for the comparable companies. All else being equal, which of the following *best* justifies the subject company's higher EV/EBITDA ratio?

- ● Higher ROIC.
- ○ Lower growth.
- ○ Greater WACC.

Rationale

✓ **Higher ROIC.**

Return on invested capital (NOPAT/TIC) helps identify how much of the subject company's EBITDA is actually making it to net operating profit after tax and can actually be considered a return to the company's suppliers of capital. Capital providers will be willing to pay more for the higher quality EBITDA.

Rationale

✗ **Lower growth.**

Return on invested capital (NOPAT/TIC) helps identify how much of the subject company's EBITDA is actually making it to net operating profit after tax and can actually be considered a return to the company's suppliers of capital. Capital providers will be willing to pay more for the higher quality EBITDA.

Rationale

✗ **Greater WACC.**

Return on invested capital (NOPAT/TIC) helps identify how much of the subject company's EBITDA is actually making it to net operating profit after tax and can actually be considered a return to the company's suppliers of capital. Capital providers will be willing to pay more for the higher quality EBITDA.

Question 46
L2R36TB-AC044-1512
LOS: LOS-8590
Lesson Reference: Lesson 5: The P/E-Growth Ratio and Using Multiples to Determine Terminal Value
Difficulty: medium
The S&P 500 Index has a current price-to-earnings growth (PEG) ratio of 1.8. Historically, its PEG has been closer to 1.5. Based only on this information, an analyst is best justified in concluding that the S&P 500 index is *most likely*:

● overvalued.

○ undervalued.

○ fairly valued.

Rationale

✓ **overvalued.**

PEG attempts to standardize P/E ratios for comparison over time given varying earnings growth rates that dramatically affect share values. The current PEG for the S&P 500 index is about 20 percent higher than its historical average and this is possibly indicating that the index is currently overvalued.

Rationale

☒ **undervalued.**

PEG attempts to standardize P/E ratios for comparison over time given varying earnings growth rates that dramatically affect share values. The current PEG for the S&P 500 index is about 20 percent higher than its historical average and this is possibly indicating that the index is currently overvalued.

Rationale

☒ **fairly valued.**

PEG attempts to standardize P/E ratios for comparison over time given varying earnings growth rates that dramatically affect share values. The current PEG for the S&P 500 index is about 20 percent higher than its historical average and this is possibly indicating that the index is currently overvalued.

Question 47
L2R36TB-AC042-1512
LOS: LOS-8600
Lesson Reference: Lesson 5: The P/E-Growth Ratio and Using Multiples to Determine Terminal Value
Difficulty: medium

A subject company has current earnings of EUR 3.25 per share, an annual earnings growth rate of 5 percent, required return of 12 percent, and dividend payout ratio of 45 percent. The average P/E multiple for the subject company's peer group is 7.0 and this multiple is expected to remain the same for the foreseeable future. Based only on this information, the subject company's terminal value calculated three years in the future using the comparables method will be *closest to*:

○ EUR 25.40.
● EUR 26.30.
○ EUR 27.60.

Rationale

✗ **EUR 25.40.**

Earnings per share in three years can be calculated as follows: EPS3 = EUR 3.25 × (1 + 0.05)3 = EUR 3.76. Using this EUR 3.76 along with the 7x average P/E for the comparables we can calculate a year 3 terminal value (TV3) as follows:

$$\mathrm{TV}_3 = \mathrm{EPS}_3 \times \mathrm{P/E} \ = \ \mathrm{EUR}\,3.76 \ \times 7 \ = \ \mathrm{EUR}\,26.33$$

Rationale

✓ **EUR 26.30.**

Earnings per share in three years can be calculated as follows: EPS3 = EUR 3.25 × (1 + 0.05)3 = EUR 3.76. Using this EUR 3.76 along with the 7x average P/E for the comparables we can calculate a year 3 terminal value (TV3) as follows:

$$\mathrm{TV}_3 = \mathrm{EPS}_3 \times \mathrm{P/E} \ = \ \mathrm{EUR}\,3.76 \ \times 7 \ = \ \mathrm{EUR}\,26.33$$

Rationale

✗ **EUR 27.60.**

Earnings per share in three years can be calculated as follows: EPS3 = EUR 3.25 × (1 + 0.05)3 = EUR 3.76. Using this EUR 3.76 along with the 7x average P/E for the comparables we can calculate a year 3 terminal value (TV3) as follows:

$$\mathrm{TV}_3 = \mathrm{EPS}_3 \times \mathrm{P/E} \ = \ \mathrm{EUR}\,3.76 \ \times 7 \ = \ \mathrm{EUR}\,26.33$$

Question 48

L2EQ-PQ3529-1411

LOS: LOS-8650

Lesson Reference: Lesson 7: International Considerations, Momentum Valuation Indicators, and Issues in Practice with Valuation Indicators

Difficulty: medium

Consider the following statements:

Statement 1: When computing average price multiples for an industry, the simple harmonic mean will be greater than the arithmetic mean.

Statement 2: The harmonic mean reduces the impact of large outliers.

Which of the following is *most* likely?

○ Only Statement 1 is correct.
● Only Statement 2 is correct.
○ Both statements are incorrect.

Rationale

✓ **This Answer is Correct**

The simple harmonic mean is typically **lower** than the arithmetic mean.

The harmonic mean reduces the impact of large outliers, but may worsen the impact of small outliers.

Question 49
L2R36TB-AC049-1512
LOS: LOS-8500
Lesson Reference: Lesson 1: Introduction: The Method of Comparables versus the Method of Forecasted Fundamentals
Difficulty: medium
Retractible, Inc. has a price-to-earnings multiple of 16.0, gross profit margin of 15.0 percent, and net profit margin of 8.0 percent. Retractible's justified price-to-sales multiple will be *closest to*:

● 1.3

○ 2.0

○ 2.4

Rationale

✓ **1.3**

The calculation for P/S is:

$$\mathrm{P/S} = \mathrm{P/E} \times \text{Net profit margin} = 16.0 \times 0.08 = 1.28$$

Rationale

☒ **2.0**

The calculation for P/S is:

$$\mathrm{P/S} = \mathrm{P/E} \times \text{Net profit margin} = 16.0 \times 0.08 = 1.28$$

Rationale

☒ **2.4**

The calculation for P/S is:

$$\mathrm{P/S} = \mathrm{P/E} \times \text{Net profit margin} = 16.0 \times 0.08 = 1.28$$

Question 50
L2EQ-TB0030-1412
LOS: LOS-8520
Lesson Reference: Lesson 2: Price Multiples Based on the Method of Comparables
Difficulty: medium

Harrow Corp. has the following equity data, presented in millions of euros:

	Book Value
Common shares	1750
Preferred shares	200
Contributed surplus	20
Retained earnings	1900
Accumulated other comprehensive income	400
Noncontrolling interest in subsidiaries	150
Total equity	4420

Given a closing price of EUR65.25 per share, and that there are 100 million common shares outstanding, which of the following is closest to Harrow's P/B ratio?

○ 1.47.
● 1.54.
○ 3.73.

Rationale

✓ **This Answer is Correct**

The book value relevant to common shareholders will be total equity minus the book value of preferred equity, that is, 4,420 – 200 = 4,220. Thus, the book value per share is 4,220 / 100 = 42.20. Hence, the P/B ratio is 65.25/42.20 = 1.54.

Question 51
L2EQ-TB0035-1412
LOS: LOS-8670
Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)
Difficulty: medium

BRS Incorporated is a listed financial services company that has recently reported EBIT of £150,000. The company has total assets of £1 million financed with 50% debt and 50% equity and is subject to a tax rate of 35%. The yield on the company's bonds is currently 6% and the company estimates that its cost of equity is 11%. Which of the following is closest to the residual income of the company?

○ £12,500.
● £23,000.
○ £32,500.

Rationale

✓ **This Answer is Correct**

The company has NOPAT of EBIT(1 – *t*) = £150,000(1 – 0.35) = £97,500.

The WACC of the company is (6% (1 – 0.35) 0.5) + (11% 0.5) = 7.45%.

Then residual income = £97,500 – 0.0745 £1,000,000 = £23,000.

Question 52
L2R36TB-AC021-1512
LOS: LOS-8580
Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)
Difficulty: medium

Ballista, Nomad, and Tricamp all have roughly equal price-to-book value (P/B) multiples. Return on equity (ROE) and betas for these three companies are:

	ROE	Beta
Ballista	13	1.05
Nomad	14	1.00
Tricamp	15	0.95

Based on this information, which firm would an analyst *most likely* recommend as the best investment opportunity?

○ Ballista.
○ Nomad.
● Tricamp.

Rationale
✖ **Ballista.**
Tricamp has the largest ROE and the lowest beta. The firm with the lowest beta will have the lowest required return using the CAPM, as both the risk-free rate and market's expected return should be the same for all three companies. Everything else being equal, as the spread between ROE and required return increases, the justified price for the shares will increase. Tricamp has the largest spread, but is selling at a P/B that is roughly equal to the P/Bs for the other two companies.

Rationale
✖ **Nomad.**
Tricamp has the largest ROE and the lowest beta. The firm with the lowest beta will have the lowest required return using the CAPM, as both the risk-free rate and market's expected return should be the same for all three companies. Everything else being equal, as the spread between ROE and required return increases, the justified price for the shares will increase. Tricamp has the largest spread, but is selling at a P/B that is roughly equal to the P/Bs for the other two companies.

Rationale

✓ **Tricamp.**

Tricamp has the largest ROE and the lowest beta. The firm with the lowest beta will have the lowest required return using the CAPM, as both the risk-free rate and market's expected return should be the same for all three companies. Everything else being equal, as the spread between ROE and required return increases, the justified price for the shares will increase. Tricamp has the largest spread, but is selling at a P/B that is roughly equal to the P/Bs for the other two companies.

Question 53
L2EQ-PQ3518-1411
LOS: LOS-8570
Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)
Difficulty: medium

Maria is evaluating the stock of Savana Company. The stock has a beta of 1.1, a retention rate of 40%, and an earnings growth rate of 5%. She estimates the following regression equation based on stocks of peer companies:

Predicted P/E = 12.25 + (1.8 × DPR) – (0.30 × Beta) + (15.20 × EGR)

DPR = Dividend payout ratio

EGR = Earnings growth rate

Given a current P/E ratio of 13.50, the stock is *most likely*:

● Undervalued
○ Fairly valued
○ Overvalued

Rationale

✓ **This Answer is Correct**

Predicted P/E = 12.25 + (1.8 × 0.6) − (0.30 × 1.1) + (15.20 × 0.05) = 13.76

Since the stock's predicted P/E is greater than its current P/E, it is said to be undervalued.

Question 54
L2EQ-PQ3501-1411
LOS: LOS-8490
Lesson Reference: Lesson 1: Introduction: The Method of Comparables versus the Method of Forecasted Fundamentals
Difficulty: medium
Senturo Inc.'s stock is currently trading at $58 per share. The company's last year's EPS amounted to $4.25. Given that the average trailing P/E of peer companies is 15, the company's stock is *most likely*:

● Undervalued
○ Fairly valued
○ Overvalued

Rationale

✓ **This Answer is Correct**

Senturo's stock price based on the benchmark P/E multiple = $4.25 × 15 = $63.75

Since the stock's current market price ($58) is less than its intrinsic value ($63.75), it is said to be undervalued.

Question 55

L2R36TB-AC045-1512
LOS: LOS-8510
Lesson Reference: Lesson 2: Price Multiples Based on the Method of Comparables
Difficulty: medium

An analyst seeking to perform a relative valuation would be *most likely* to use the price-to-book value (P/BV) multiple rather than a price-to-earnings (P/E) multiple when firms in the industry have:

● highly liquid assets.
○ divergent business models.
○ high levels of internally generated intangible assets.

Rationale

✓ **highly liquid assets.**

Book values are similar to market values when companies have highly liquid assets, leading to reliable price estimates for the assets and more predictable equity share values.

Rationale

✗ **divergent business models.**

Book values are similar to market values when companies have highly liquid assets, leading to reliable price estimates for the assets and more predictable equity share values.

Rationale

✗ **high levels of internally generated intangible assets.**

Book values are similar to market values when companies have highly liquid assets, leading to reliable price estimates for the assets and more predictable equity share values.

Question 56

L2R36TB-AC047-1512

LOS: LOS-8560

Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)

Difficulty: medium

Scalable, Inc. and the average for its sector benchmark companies have identical forecasted ROEs, growth rates, and price-to-book (P/B) ratios. Scalable has higher beta than the average of benchmark companies. Based only on this information, an analyst comparing Scalable's justified P/B based on forecasted fundamentals to the justified P/B ratios based on forecasted fundamentals for the comparables will *most likely* conclude that Scalable justified P/B relative to the comparables should be:

○ the same.

○ higher.

● lower.

Rationale

☒ **the same.**

The formula for the justified P/B is as follows:

$$\text{Justified } \frac{P_0}{B_0} = \frac{\text{ROE} - g}{r_c - g}$$

Since Scalable has a higher beta than the comparables, it should have a greater forecasted required return on equity than the comparables. The rest of the forecasted inputs in the justified P/B calculations are the same. As a result of having a higher required return on equity, the denominator in Scalable's justified P/B calculation will be higher than the denominators for the comparable and this should cause Scalable's justified P/B based on forecasted fundamentals to be lower than the justified P/Bs based on forecasted fundamentals for the comparables.

Rationale

☒ **higher.**

The formula for the justified P/B is as follows:

$$\text{Justified } \frac{P_0}{B_0} = \frac{\text{ROE} - g}{r_c - g}$$

Since Scalable has a higher beta than the comparables, it should have a greater forecasted required return on equity than the comparables. The rest of the forecasted inputs in the justified P/B calculations are the same. As a result of having a higher required return on equity, the denominator in Scalable's justified P/B calculation will be higher than the denominators for the comparable and this should cause Scalable's justified P/B based on forecasted fundamentals to be lower than the justified P/Bs based on forecasted fundamentals for the comparables.

Rationale

✓ **lower.**

The formula for the justified P/B is as follows:

$$\text{Justified } \frac{P_0}{B_0} = \frac{\text{ROE} - g}{r_c - g}$$

Since Scalable has a higher beta than the comparables, it should have a greater forecasted required return on equity than the comparables. The rest of the forecasted inputs in the justified P/B calculations are the same. As a result of having a higher required return on equity, the denominator in Scalable's justified P/B calculation will be higher than the denominators for the comparable and this should cause Scalable's justified P/B based on forecasted fundamentals to be lower than the justified P/Bs based on forecasted fundamentals for the comparables.

Question 57
L2EQ-PQ3505-1411
LOS: LOS-8520
Lesson Reference: Lesson 2: Price Multiples Based on the Method of Comparables
Difficulty: medium

An analyst gathered the following information regarding a company:

Common stock (issued 50,000 common shares) = $1 million

Preferred stock (issued 3,000 preferred shares) = $90,000

Additional paid-in capital = $5,000

Retained earnings = $60,000

Total shareholders' equity = $1,155,000

Given that the company's share is currently trading at $38.25, its P/B ratio is *closest to*:

○ 1.66
○ 35.92
● 1.80

Rationale
✓ **This Answer is Correct**

Common shareholders' equity = Total shareholders' equity − Total value of preferred stock

Common shareholders' equity = $1,155,000 − $90,000 = $1,065,000

Book value per share = $1,065,000 / 50,000 = $21.30

P/B ratio = 38.25 / 21.301 = 1.7958

Question 58
L2R36TB-AC016-1512
LOS: LOS-8500
Lesson Reference: Lesson 1: Introduction: The Method of Comparables versus the Method of Forecasted Fundamentals
Difficulty: medium

Big Cereal's P/E ratios based on trailing twelve months (TTM) earnings in the past have been:

	2008	2009	2010	2011	2012
P/E	17.6	16.1	15.2	16.3	22.8

Using the mean P/E for these years, Big Cereal's justified share price based on the current TTM EPS of $2.68 will be *closest to*:

○ $44
● $47
○ $61

Rationale
✗ **$44**
Big Cereal's justified share price based on average P/E is:

$$\text{Justified price} = E_0 \times \frac{\sum \text{Historical P/E ratios}}{n} = \$2.68 \times \frac{17.6 + 15.2 + 16.3 + 22.8}{5} = \$47$$

Rationale
✓ **$47**
Big Cereal's justified share price based on average P/E is:

$$\text{Justified price} = E_0 \times \frac{\sum \text{Historical P/E ratios}}{n} = \$2.68 \times \frac{17.6 + 15.2 + 16.3 + 22.8}{5} = \$47$$

Rationale
✗ **$61**
Big Cereal's justified share price based on average P/E is:

$$\text{Justified price} = E_0 \times \frac{\sum \text{Historical P/E ratios}}{n} = \$2.68 \times \frac{17.6 + 15.2 + 16.3 + 22.8}{5} = \$47$$

Question 59
L2R36TB-AC029-1512
LOS: LOS-8520
Lesson Reference: Lesson 2: Price Multiples Based on the Method of Comparables
Difficulty: medium

Fantasy Games, Inc. paid a $1.50 dividend per share in the most recent quarter and it has paid $5.00 in dividends per share over the past four quarters. If the company's shares are trading at $100.00, the trailing dividend yield will be *closest to*:

○ 5.0 percent.
○ 5.3 percent.
● 6.0 percent.

Rationale

✗ **5.0 percent.**

The trailing dividend yield is calculated as follows:

$$\text{Trailing dividend yield} = \frac{\text{Annualized most recent dividend}}{P_0} = \frac{\$1.50 \times 4}{\$100} = 6.0\%$$

Rationale

✗ **5.3 percent.**

The trailing dividend yield is calculated as follows:

$$\text{Trailing dividend yield} = \frac{\text{Annualized most recent dividend}}{P_0} = \frac{\$1.50 \times 4}{\$100} = 6.0\%$$

Rationale

✓ **6.0 percent.**

The trailing dividend yield is calculated as follows:

$$\text{Trailing dividend yield} = \frac{\text{Annualized most recent dividend}}{P_0} = \frac{\$1.50 \times 4}{\$100} = 6.0\%$$

Question 60
L2R36TB-AC028-1512
LOS: LOS-8500
Lesson Reference: Lesson 1: Introduction: The Method of Comparables versus the Method of Forecasted Fundamentals
Difficulty: medium

An analyst is valuing a company trading at $100.05 per share. The company's trailing free cash flow to equity (FCFE) was calculated to be $4.25 per share. The analyst has estimated that the FCFE will grow at a 7.0 percent rate indefinitely and that the required return on equity (r_c) is 12.0 percent. If using trailing FCFE as cash flow, the analyst will calculate a justified P/CF for this company that is *closest to*:

○ 20.0x

● 21.4x

○ 23.5x

Rationale

✗ **20.0x**

The company's justified price is:

$$V_0 = \frac{\mathrm{FCFF}_0\,(1+g)}{r_c - g} = \frac{\$4.25\,(1+0.07)}{0.12-0.07} = \$90.95$$

The justified P/CF is then calculated as follows: $90.95/$4.25 = 21.4x

Rationale

✓ **21.4x**

The company's justified price is:

$$V_0 = \frac{\mathrm{FCFF}_0\,(1+g)}{r_c - g} = \frac{\$4.25\,(1+0.07)}{0.12-0.07} = \$90.95$$

The justified P/CF is then calculated as follows: $90.95/$4.25 = 21.4x

Rationale

✗ **23.5x**

The company's justified price is:

$$V_0 = \frac{\mathrm{FCFF}_0\,(1+g)}{r_c - g} = \frac{\$4.25\,(1+0.07)}{0.12-0.07} = \$90.95$$

The justified P/CF is then calculated as follows: $90.95/$4.25 = 21.4x

Question 61
L2R36TB-AC052-1512
LOS: LOS-8620
Lesson Reference: Lesson 6: Enterprise Value Multiples
Difficulty: medium

An analyst would *most likely* use enterprise value-to-sales (EV/S) rather than price-to-sales (P/S) when both the company being analyzed and the comparables have:

○ negative earnings.
● divergent debt-to-capital ratios.
○ different revenue recognition practices.

Rationale

✗ **negative earnings.**

For a heavily debt-financed company, the P/S multiple incorrectly communicates that sales are a return to equity capital when they are, in fact, helping pay for interest expense. The EV/S multiple, by contrast, correctly communicates that interest expense is available to the group of all capital providers.

Rationale

✓ **divergent debt-to-capital ratios.**

For a heavily debt-financed company, the P/S multiple incorrectly communicates that sales are a return to equity capital when they are, in fact, helping pay for interest expense. The EV/S multiple, by contrast, correctly communicates that interest expense is available to the group of all capital providers.

Rationale

✗ **different revenue recognition practices.**

For a heavily debt-financed company, the P/S multiple incorrectly communicates that sales are a return to equity capital when they are, in fact, helping pay for interest expense. The EV/S multiple, by contrast, correctly communicates that interest expense is available to the group of all capital providers.

Question 62
L2R36TB-AC053-1512
LOS: LOS-8650
Lesson Reference: Lesson 7: International Considerations, Momentum Valuation Indicators, and Issues in Practice with Valuation Indicators
Difficulty: medium

An analyst considering a substantial investment in a subject company with a P/E of 19 has determined that several comparable companies have an average P/E of 23, median P/E of 19, and a weighted harmonic mean P/E of 17. The analyst would *most likely* determine that the subject company is:

● overvalued.
○ undervalued.
○ fairly valued.

Rationale
✓ **overvalued.**
The harmonic mean, which reduces the effect of outliers, tends to produce the truest average of the three methods for finding a mean for comparables price multiples. Therefore, the analyst should compare the company's P/E of 19 to the comparables harmonic mean of 17. Based on this comparison, the analyst will most likely conclude that the subject company's shares are overvalued because they are at a higher P/E than the comparables.

Rationale
☒ **undervalued.**
The harmonic mean, which reduces the effect of outliers, tends to produce the truest average of the three methods for finding a mean for comparables price multiples. Therefore, the analyst should compare the company's P/E of 19 to the comparables harmonic mean of 17. Based on this comparison, the analyst will most likely conclude that the subject company's shares are overvalued because they are at a higher P/E than the comparables.

Rationale
☒ **fairly valued.**
The harmonic mean, which reduces the effect of outliers, tends to produce the truest average of the three methods for finding a mean for comparables price multiples. Therefore, the analyst should compare the company's P/E of 19 to the comparables harmonic mean of 17. Based on this comparison, the analyst will most likely conclude that the subject company's shares are overvalued because they are at a higher P/E than the comparables.

Question 63

L2EQ-ITEMSET-PQ3511-1411
LOS: LOS-8530
Lesson Reference: Lesson 3: Normalized Earnings and the Earnings Yield

Use the following information to answer the next 2 questions:

On January 1, 2012, the stock of Jupiter Inc. is trading at $21.50. Sara is analyzing the company's stock and decides to normalize the company's earnings as part of her analysis. She gathers the following information regarding the company's earnings per share (EPS), book value per share (BVPS), and return on equity (ROE) from 2006 to 2011.

Measure	2006	2007	2008	2009	2010	2011
EPS ($)	0.58	0.67	0.75	0.83	1.02	1.10
BVPS ($)	2.98	3.25	4.02	4.70	5.15	5.59
ROE (%)	8.20	9.58	10.85	14.20	21.45	27.20

i.

Using normalized EPS based on historical average EPS, the P/E ratio is *closest to*:

○ 19.54
○ 28.54
● 26.06

Rationale

✓ **This Answer is Correct**

Average EPS = (0.58 + 0.67 + 0.75 + 0.83 + 1.02 + 1.10) / 6 = $0.825

P/E ratio = 21.50 / 0.825 = 26.06

ii.

Using normalized EPS based on average ROE, the P/E ratio is *closest to*:

● 25.23
○ 32.93
○ 18.46

Rationale

✓ **This Answer is Correct**

Average ROE = (8.20% + 9.58% + 10.85% + 14.20% + 21.45% + 27.20%) / 6 = 15.25%

Based on current BVPS of $5.59, normalized EPS = 15.25% × $5.59 = $0.8523

P/E ratio = 21.50 / 0.8523 = 25.23

Question 64
L2R36TB-AC039-1512
LOS: LOS-8540
Lesson Reference: Lesson 3: Normalized Earnings and the Earnings Yield
Difficulty: medium

Which of the following *best* justifies using earnings yield rather than P/E ratios to compare a subject company to its peers?

○ Greater depreciation in the subject company.

● Non-positive earnings in the subject company or peer group.

○ A relatively high value of non-recurring events among the peer companies.

Rationale

✗ **Greater depreciation in the subject company.**

Negative earnings in the subject company or peer group will make comparison difficult, but zero earnings will cause the multiples to be indeterminate as the result of division by zero.

Rationale

✓ **Non-positive earnings in the subject company or peer group.**

Negative earnings in the subject company or peer group will make comparison difficult, but zero earnings will cause the multiples to be indeterminate as the result of division by zero.

Rationale

✗ **A relatively high value of non-recurring events among the peer companies.**

Negative earnings in the subject company or peer group will make comparison difficult, but zero earnings will cause the multiples to be indeterminate as the result of division by zero.

Question 65

L2R36TB-AC038-1512

LOS: LOS-8490

Lesson Reference: Lesson 1: Introduction: The Method of Comparables versus the Method of Forecasted Fundamentals

Difficulty: medium

An analyst uses trailing cash flow to calculate P/CF for a subject company and a comparable peer group. If the analyst wishes to determine whether the subject company is overvalued or undervalued relative to its peers, the rationale for using P/CF as a relative valuation tool could *best* be described as:

● the law of one price.

○ comparison of equals.

○ fundamentals-based valuation.

Rationale

✓ **the law of one price.**

Although this method may be a comparison of (almost) equals, the best description for the rationale behind it is the law of one price. Everything else equal, all buyers should be willing to pay the same price for the same cash flow.

Rationale

✗ **comparison of equals.**

Although this method may be a comparison of (almost) equals, the best description for the rationale behind it is the law of one price. Everything else equal, all buyers should be willing to pay the same price for the same cash flow.

Rationale

✗ **fundamentals-based valuation.**

Although this method may be a comparison of (almost) equals, the best description for the rationale behind it is the law of one price. Everything else equal, all buyers should be willing to pay the same price for the same cash flow.

Question 66
L2R36TB-ITEMSET-AC001-1512
LOS: LOS-8490
LOS: LOS-8580
LOS: LOS-8560
Lesson Reference: Lesson 1: Introduction: The Method of Comparables versus the Method of Forecasted Fundamentals
Difficulty: medium

Use the following information to answer the next 3 questions:

Shireen Rangwalla is preparing a report on Royal AGC, a global science-based company active in health, nutrition, and materials. AGC has recently changed its business model and discontinued non-profitable operations. This change is expected by most analysts to increase Royal AGC's growth rate relative to competitors.

Rangwalla's company, a private equity firm, wants to establish a position in health sciences and wishes to consider AGC as an equity investment. Rangwalla will thoroughly discuss the company with her supervisor prior to taking her analysis to the investment policy committee. In preparation for that meeting, she develops financial information in Exhibit 1 and other relevant data in Exhibit 2.

Exhibit 1 Royal AGC: Financial Data (millions of EUR, except share data):

Total profit	447
Profit attributable to non-controlling interests	10
Nonrecurring profit	149
Dividend on cumulative preferred shares	10
Number of common shares outstanding	254 million

Exhibit 2 Royal AGC: Other data

Expected earnings growth rate	6.0%
Dividend payout ratio	25.0%
Risk-free interest rate	2.0%
Equity market risk premium	6.0%
AGC beta vs. market earnings	1.1

In an initial meeting with her supervisor, Rangwalla indicates she considered three potential approaches for comparing AGC's equity share price with an industry benchmark:

Approach 1: Comparables method.
Approach 2: Discounted cash flows method using a constant growth dividend discount model.

Approach 3: Fundamentals method using cross-sectional regression performed against earnings through last period.

The benchmark forward P/E was 12 using the mean. Royal AGC's price is EUR 16.50 per share. Upon review of the financial data, Rangwalla concludes that minority interest has not been subtracted in determining total profit.

i.

Which approach will Rangwalla *most likely* find appropriate to value Royal AGC's shares?

○ Approach 1.

● Approach 2.

○ Approach 3.

Rationale

✓ **This Answer is Correct**

The fundamentals method using discounted cash flows will be the most theoretically sound assuming information can be reliably determined. Royal AGC has recently changed its business model, which means it will not be appropriate to use trailing earnings in the comparables method. This also makes the cross-section regression invalid. Because Royal AGC now has a different business model than its competitors, it will not be completely comparable in the future and P/E using forward earnings may not reflect its growth potential in current price or, if current price reflects its growth potential, the shares will appear overpriced relative to the benchmark.

Rationale

✓ **This Answer is Correct**

The fundamentals method using discounted cash flows will be the most theoretically sound assuming information can be reliably determined. Royal AGC has recently changed its business model, which means it will not be appropriate to use trailing earnings in the comparables method. This also makes the cross-section regression invalid. Because Royal AGC now has a different business model than its competitors, it will not be completely comparable in the future and P/E using forward earnings may not reflect its growth potential in current price or, if current price reflects its growth potential, the shares will appear overpriced relative to the benchmark.

Rationale

✓ **This Answer is Correct**

The fundamentals method using discounted cash flows will be the most theoretically sound assuming information can be reliably determined. Royal AGC has recently changed its business model, which means it will not be appropriate to use trailing earnings in the comparables method. This also makes the cross-section regression invalid. Because Royal

AGC now has a different business model than its competitors, it will not be completely comparable in the future and P/E using forward earnings may not reflect its growth potential in current price or, if current price reflects its growth potential, the shares will appear overpriced relative to the benchmark.

ii.

Based on Approach 1, Royal AGC's price-to-earnings (P/E) multiple for comparison to the benchmark forward P/E of 12 will be *closest to*:

○ 10

● 14

○ 18

Rationale

✗ **This Answer is Incorrect**

First determine Royal AGC's earnings available to common shareholders:

Total profit	447
Less: Profit attributable to non-controlling interests	14910
Less: Nonrecurring profit	149
Recurring profit available to all equity holders	288
Less: Dividend on cumulative preferred shares	10
Recurring profit available to common equity	278

Note that profit attributable to non-controlling interests was deducted in finding the recurring profit available to common equity. In some cases, this may already be deducted in the financial statements before coming to the reported total profit. In addition, recurring profit should be used because nonrecurring profits will be unlikely to repeat in most cases.

The current P/E can be calculated dividing the EUR 16.50 price per share by the recurring earnings on a per share basis. However, you must grow current earnings forward one period to determine a forward P/E for Royal AGC that can then be compared to the benchmark forward P/E:

$$\frac{\mathrm{P}_0}{\mathrm{E}_1} = \frac{\mathrm{P}}{\mathrm{EPS}_0(1+g)} = \frac{16.50}{(278/254)\,(1+0.06)} = 14.2$$

Rationale

✗ **This Answer is Incorrect**

First determine Royal AGC's earnings available to common shareholders:

Total profit	447
Less: Profit attributable to non-controlling interests	14910
Less: Nonrecurring profit	149
Recurring profit available to all equity holders	288
Less: Dividend on cumulative preferred shares	10
Recurring profit available to common equity	278

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$$\frac{\mathrm{P}_0}{\mathrm{E}_1} = \frac{\mathrm{P}}{\mathrm{EPS}_0(1+g)} = \frac{16.50}{(278/254)\,(1+0.06)} = 14.2$$

Rationale

This Answer is Incorrect

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Note that profit attributable to non-controlling interests was deducted in finding the recurring profit available to common equity. In some cases, this may already be deducted in the financial statements before coming to the reported total profit. In addition, recurring profit should be used because nonrecurring profits will be unlikely to repeat in most cases.

The current P/E can be calculated dividing the EUR 16.50 price per share by the recurring earnings on a per share basis. However, you must grow current earnings forward one period to determine a forward P/E for Royal AGC that can then be compared to the benchmark forward P/E:

$$\frac{\mathrm{P}_0}{\mathrm{E}_1}=\frac{\mathrm{P}}{\mathrm{EPS}_0(1+g)}=\frac{16.50}{(278/254)\,(1+0.06)}=14.2$$

iii.

The justified forward price-to-earnings (P/E) multiple for Royal AGC is *closest to*:

● 9.6

○ 28.8

○ 41.7

Rationale

✖ **This Answer is Incorrect**

First Royal AGC's required return must be calculated. The data provided leads us to use the CAPM:

$$\mathrm{r_c}=\mathrm{r_F}+\beta\,(\text{Market Risk Premium})=2.0+1.1\,(6.0)=8.6$$

The justified forward P/E is then calculated as follows:

$$\text{Justified forward P/E}=\frac{\mathrm{P}_0}{\mathrm{E}_1}=\frac{(1-\mathrm{RR})}{r_c-\mathrm{g}}=\frac{\mathrm{DPR}}{\mathrm{r_c}-g}=\frac{0.25}{0.086-0.06}=9.6$$

Rationale

✖ **This Answer is Incorrect**

First Royal AGC's required return must be calculated. The data provided leads us to use the CAPM:

$$\mathrm{r_c}=\mathrm{r_F}+\beta\,(\text{Market Risk Premium})=2.0+1.1\,(6.0)=8.6$$

The justified forward P/E is then calculated as follows:

$$\text{Justified forward P/E}=\frac{\mathrm{P}_0}{\mathrm{E}_1}=\frac{(1-\mathrm{RR})}{r_c-\mathrm{g}}=\frac{\mathrm{DPR}}{\mathrm{r_c}-g}=\frac{0.25}{0.086-0.06}=9.6$$

Rationale

✖ **This Answer is Incorrect**

First Royal AGC's required return must be calculated. The data provided leads us to use the CAPM:

$$\mathrm{r_c}=\mathrm{r_F}+\beta\,(\text{Market Risk Premium})=2.0+1.1\,(6.0)=8.6$$

The justified forward P/E is then calculated as follows:

$$\text{Justified forward P/E} = \frac{\mathrm{P_0}}{\mathrm{E_1}} = \frac{(1 - \mathrm{RR})}{r_\mathrm{c} - \mathrm{g}} = \frac{\mathrm{DPR}}{\mathrm{r_c} - g} = \frac{0.25}{0.086 - 0.06} = 9.6$$

Question 67

L2EQ-PQ3517-1411

LOS: LOS-8560

Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)

Difficulty: medium

An analyst gathered the following information regarding the stock of Pluto Inc.:

Current market price = $46

Required rate of return on equity = 12%

Consensus growth = 5%

Given that the stock offers a dividend yield of 5.5%, based on its justified dividend yield, the stock is *most likely*:

○ Undervalued
○ Fairly valued
● Overvalued

Rationale

✓ **This Answer is Correct**

Justified dividend yield = (r − g) / (1 + g) = (0.12 − 0.05) / 1.05 = 6.67%

Since the stock's justified dividend yield is higher than its current dividend yield, it is overvalued.

Question 68

L2EQ-TB0034-1412

LOS: LOS-8560

Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)

Difficulty: medium

For a company with return on equity equal to its required return on equity, the justified P/B ratio for the company based on fundamental factors is *most likely* to be:

○ Less than one.

● One.

○ Greater than one.

Rationale

✓ **This Answer is Correct**

The justified P/B of a company based on fundamental factors is given by the formula:

P/B = (ROE – g) / (r – g) where ROE is the return on equity, g is the long-term growth rate of the company, and r is the required return of the company. Hence, if ROE = r, the justified P/B is one.

Question 69
L2R36TB-AC025-1512
LOS: LOS-8560
Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)
Difficulty: medium

An analyst has assembled the following information for Tatiana:

	Growth Rate	Retention Rate	Net Profit Margin	Required Return on Equity
Percentage	10	60	12	18

The justified price-to-sales (P/S) multiple for Tatiana is *closest to*:

○ 0.6
● 0.7
○ 1.0

Rationale

✗ **0.6**

The justified price-to-sales (P/S) ratio for Tatiana is:

$$\frac{P_0}{S_0} = \frac{(E_0/S_0)\,(1-\text{RR})\,(1+g)}{r_c - g} = \frac{\text{PM}_0\,(1-\text{RR})\,(1+g)}{r_c - g} = \frac{0.12\,(1-0.60)\,(1+0.10)}{0.18-0.10} = 0.$$

Rationale

✓ **0.7**

The justified price-to-sales (P/S) ratio for Tatiana is:

$$\frac{P_0}{S_0} = \frac{(E_0/S_0)\,(1-\text{RR})\,(1+g)}{r_c - g} = \frac{\text{PM}_0\,(1-\text{RR})\,(1+g)}{r_c - g} = \frac{0.12\,(1-0.60)\,(1+0.10)}{0.18-0.10} = 0.$$

Rationale

✗ **1.0**

The justified price-to-sales (P/S) ratio for Tatiana is:

$$\frac{P_0}{S_0} = \frac{(E_0/S_0)\,(1-\text{RR})\,(1+g)}{r_c - g} = \frac{\text{PM}_0\,(1-\text{RR})\,(1+g)}{r_c - g} = \frac{0.12\,(1-0.60)\,(1+0.10)}{0.18-0.10} = 0.$$

Question 70
L2R36TB-AC050-1512
LOS: LOS-8610
Lesson Reference: Lesson 6: Enterprise Value Multiples
Difficulty: medium

An analyst considering valuation using the comparables method would *most likely* use the free-cash-flow-to-equity (FCFE) definition as opposed to net income plus non-cash charges for the price-to-cash-flow multiple because FCFE:

○ adjusts for non-cash charges.
○ adjusts for preferred dividends.
● considers working capital investment.

Rationale

☒ **adjusts for non-cash charges.**

FCFE is the appropriate cash flow for equity valuation. It correctly considers working capital investment, which is not being addressed when naively using net income plus non-cash charges. Both measures consider non-cash charges and preferred dividends.

Rationale

☒ **adjusts for preferred dividends.**

FCFE is the appropriate cash flow for equity valuation. It correctly considers working capital investment, which is not being addressed when naively using net income plus non-cash charges. Both measures consider non-cash charges and preferred dividends.

Rationale

✓ **considers working capital investment.**

FCFE is the appropriate cash flow for equity valuation. It correctly considers working capital investment, which is not being addressed when naively using net income plus non-cash charges. Both measures consider non-cash charges and preferred dividends.

Question 71
L2R36TB-AC017-1512
LOS: LOS-8580
Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)
Difficulty: medium

The mean P/E for several companies in a peer group is 28, but there is a high standard deviation associated with this P/E. In comparison, the peer group's median P/E ratio is 15. Three of the peer group companies have P/E ratios as follows:

Company A	13
Company B	28
Company C	30

Which of the following *best* identifies the companies' relationship to the appropriate P/E multiple?

● Company A is undervalued.
○ Company B is fairly valued.
○ Companies A and B are undervalued.

Rationale
✓ **Company A is undervalued.**
You should use the median because the mean multiple appears substantially upward biased. If available, the harmonic mean would have been a better alternative. Company A's P/E at 13 is less than the median peer group P/E of 15. Therefore, it is undervalued because it would cost investors less for each unit of earnings than the median company.

Rationale
☒ **Company B is fairly valued.**
You should use the median because the mean multiple appears substantially upward biased. If available, the harmonic mean would have been a better alternative. Company A's P/E at 13 is less than the median peer group P/E of 15. Therefore, it is undervalued because it would cost investors less for each unit of earnings than the median company.

Rationale
☒ **Companies A and B are undervalued.**
You should use the median because the mean multiple appears substantially upward biased. If available, the harmonic mean would have been a better alternative. Company A's

P/E at 13 is less than the median peer group P/E of 15. Therefore, it is undervalued because it would cost investors less for each unit of earnings than the median company.

Question 72

L2EQ-PQ3524-1411

LOS: LOS-8640

Lesson Reference: Lesson 7: International Considerations, Momentum Valuation Indicators, and Issues in Practice with Valuation Indicators

Difficulty: medium

The percentage surprise (% surprise) for a company that was expected to report a loss for the year is a negative number. Which of the following is *least likely*?

○ The company made a less-than-expected loss.

● The company made a greater-than-expected loss.

○ The company made a profit.

Rationale

✓ **This Answer is Correct**

Percentage surprise is calculated as earnings surprise divided by expected EPS. If the company makes a greater-than-expected loss, the earnings surprise would be negative and since expected EPS is also negative, the percentage surprise would be positive.

Question 73
L2R36TB-AC026-1512
LOS: LOS-8660
Lesson Reference: Lesson 7: International Considerations, Momentum Valuation Indicators, and Issues in Practice with Valuation Indicators
Difficulty: medium

An analyst has gathered the information below on Dra, Inc. and two comparable companies, A and B:

	Dra	**A**	**B**
P/S multiple	4.9	6.3	7.1
Forecast growth rate	08.0%	08.0%	09.0%
Forecast profit margin	10.0%	10.0%	12.0%
Payout ratio	45.0%	45.0%	40.0%
Beta with the market	1.3	0.9	1.1

Based only on this information, the analyst would *most likely* conclude that Dra's relatively low P/S is a reflection of the company being relatively:

○ undervalued because its P/S is below the competitors' P/S multiples.
● riskier because it has a higher beta than its competitors and the P/S might reflect this risk.
○ overvalued because it has lower growth and profit margin and higher payout than both A and B.

Rationale
✗ **undervalued because its P/S is below the competitors' P/S multiples.**
Dra initially appears undervalued based on its P/S being lower than its competitors. But, this appears to mostly be a reflection of the company's higher risk as reflected by its beta. Even in comparison to competitor A, which has the same growth rate, profit margin, and payout as Dra, the P/S is significantly different and would be best explained by the difference between Dra's beta of 1.3 and A's beta of 0.9.

Rationale
✓ **riskier because it has a higher beta than its competitors and the P/S might reflect this risk.**
Dra initially appears undervalued based on its P/S being lower than its competitors. But, this appears to mostly be a reflection of the company's higher risk as reflected by its beta. Even in comparison to competitor A, which has the same growth rate, profit margin, and payout as Dra, the P/S is significantly different and would be best explained by the difference between Dra's beta of 1.3 and A's beta of 0.9.

Rationale

✗ **overvalued because it has lower growth and profit margin and higher payout than both A and B.**

Dra initially appears undervalued based on its P/S being lower than its competitors. But, this appears to mostly be a reflection of the company's higher risk as reflected by its beta. Even in comparison to competitor A, which has the same growth rate, profit margin, and payout as Dra, the P/S is significantly different and would be best explained by the difference between Dra's beta of 1.3 and A's beta of 0.9.

Question 74

L2R36TB-AC022-1512

LOS: LOS-8520

Lesson Reference: Lesson 2: Price Multiples Based on the Method of Comparables

Difficulty: medium

In 2012, Big Cereal reported annual sales of $14.2 billion and 358 million average common shares outstanding over the period. If Big Cereal's price is $61.00 at the end of 2012, its trailing price-to-sales (P/S) multiple will be *closest to*:

- ● 1.54
- ○ 1.64
- ○ 1.84

Rationale

✓ **1.54**

The P/S calculation is as follows:

$$\frac{\text{P}}{\text{S}} = \frac{\$61.00}{\$14{,}200\ \text{million}/358\ \text{million}} = 1.54$$

Rationale

✗ **1.64**

The P/S calculation is as follows:

$$\frac{\text{P}}{\text{S}} = \frac{\$61.00}{\$14{,}200\ \text{million}/358\ \text{million}} = 1.54$$

Rationale

✗ **1.84**

The P/S calculation is as follows:

$$\frac{\text{P}}{\text{S}} = \frac{\$61.00}{\$14{,}200\ \text{million}/358\ \text{million}} = 1.54$$

Question 75

L2R36TB-AC041-1512

LOS: LOS-8630

Lesson Reference: Lesson 7: International Considerations, Momentum Valuation Indicators, and Issues in Practice with Valuation Indicators

Difficulty: medium

Inflation rates in a subject company's country have averaged 20 percent per year and are expected to continue at that rate. The company can pass 90 percent of inflation to its customers via higher prices. The country has a real rate of return of 4 percent. The subject company's P/E will be *closest to*:

○ 4.5

● 16.7

○ 25.0

Rationale

✗ **4.5**

In this scenario, the P/E will be:

$$\frac{P_0}{E_1} = \frac{1}{\rho + (1 - \lambda)\,\mathrm{I}} = \frac{1}{0.04 + (1 - 0.90)\,0.20} = 16.7$$

Rationale

✓ **16.7**

In this scenario, the P/E will be:

$$\frac{P_0}{E_1} = \frac{1}{\rho + (1 - \lambda)\,\mathrm{I}} = \frac{1}{0.04 + (1 - 0.90)\,0.20} = 16.7$$

Rationale

✗ **25.0**

In this scenario, the P/E will be:

$$\frac{P_0}{E_1} = \frac{1}{\rho + (1 - \lambda)\,\mathrm{I}} = \frac{1}{0.04 + (1 - 0.90)\,0.20} = 16.7$$

Question 76
L2R36TB-AC019-1512
LOS: LOS-8600
Lesson Reference: Lesson 5: The P/E-Growth Ratio and Using Multiples to Determine Terminal Value
Difficulty: medium

An analyst has determined that Bienville Corporation's peer group has a mean trailing P/E of 17 and earnings growth of 12 percent. If Bienville's trailing earnings at the timeframe when the terminal value is needed are expected to be $4.75, then its terminal value will be *closest to*:

○ $70
● $80
○ $90

Rationale

✗ **$70**

Terminal value for Bienville is calculated as follows:

$$\mathrm{TV_n = E_n \times P/E = \$4.75\ \times\ 17 = \$80.75}$$

Rationale

✓ **$80**

Terminal value for Bienville is calculated as follows:

$$\mathrm{TV_n = E_n \times P/E = \$4.75\ \times\ 17 = \$80.75}$$

Rationale

✗ **$90**

Terminal value for Bienville is calculated as follows:

$$\mathrm{TV_n = E_n \times P/E = \$4.75\ \times\ 17 = \$80.75}$$

Question 77
L2EQ-PQ3523-1411
LOS: LOS-8620
Lesson Reference: Lesson 6: Enterprise Value Multiples
Difficulty: medium

An analyst gathered the following information regarding Violet Inc.:

Market value of common shares outstanding = $7 million

Market value of preferred stock = $2 million

Market value of debt = $10.5 million

Non-controlling interest = $1.5 million

Cash and short-term investments = $1.2 million

Revenues = $9 million

Depreciation and amortization expense = $0.8 million

Interest expense = $0.25 million

Taxes = $0.4 million

Net income = $3.2 million

The EV/EBITDA ratio for the company is *closest to*:

○ 3.94
● 4.26
○ 4.77

Rationale

✓ **This Answer is Correct**

Enterprise value = Market value of common equity + Market value of preferred stock + Market value of debt + Non-controlling interest − Cash and short-term investments

Enterprise value = $7m + $2m + $10.5m + $1.5m − $1.2m = $19.8 million

EBITDA = Net income + Interest + Taxes + Depreciation and amortization

EBITDA = $3.2m + $0.25m + $0.4m + $0.8m = $4.65 million

EV/EBITDA = $19.8/$4.65 = 4.26

Question 78
L2EQ-PQ3521-1411
LOS: LOS-8590
Lesson Reference: Lesson 5: The P/E-Growth Ratio and Using Multiples to Determine Terminal Value
Difficulty: medium

Samantha is contemplating investing in one of three stocks, Alpha, Beta, and Gamma. She gathers the following information:

Company	Forward P/E	5-Year EPS Growth Forecast
Alpha	9.25	13%
Beta	8.65	13%
Gamma	11.8	15%

Given the information above, which stock should Samantha invest in?

○ Alpha
● Beta
○ Gamma

Rationale

✓ **This Answer is Correct**

Based on the given information, the PEG ratios can be calculated as follows:

Alpha: 9.25 / 13 = 0.71

Beta: 8.65 / 13 = 0.67

Gamma: 11.80 / 15 = 0.79

Since Beta has the lowest P/E per percentage point of expected growth, it is the most attractive investment.

Question 79

L2EQ-TB0028-1412
LOS: LOS-8490
Lesson Reference: Lesson 1: Introduction: The Method of Comparables versus the Method of Forecasted Fundamentals
Difficulty: medium

When conducting valuation based on price multiples, the law of one price underlies the economic rationale behind:

○ Justified price multiples.
● The method of comparables.
○ The method of forecasted fundamentals.

Rationale

✓ **This Answer is Correct**

The method of comparables uses a benchmark valuation for a price multiple derived from a similar security or relevant industry index. The economic principle that two identical assets should sell at the same price, that is, the law of one price, is applied to make relative valuation judgments should the multiples not be the same. In contrast, the method of forecasted fundamentals uses fundamental information about the security such as cash flows to determine a fair value and hence fair multiple. This does not use the law of one price. Answer A is incorrect because justified price multiples is simply a general name for fair multiples derived from either the comparables or fundamental approaches.

Question 80
L2EQ-PQ3509-1411
LOS: LOS-8520
Lesson Reference: Lesson 2: Price Multiples Based on the Method of Comparables
Difficulty: medium

On June 30, 2012, the stock of Beta Ltd was trading at $35.80 per share. The following information regarding the company's historical semi-annual dividends is also available:

Dividends paid per share on:

December 31, 2010 = $0.80

June 30, 2011 = $0.30

December 31, 2011 = $0.90

June 30, 2012 = $0.35

Next year's expected dividend is $1.60 per share, when the stock is expected to sell for $39.50.

The company's trailing and leading dividend yields are *closest to*:

	Trailing Dividend Yield	**Leading Dividend Yield**
A	3.91%	4.47%
B	3.91%	4.05%
C	3.49%	4.47%

○ Row A
○ Row B
● Row C

Rationale
✓ **This Answer is Correct**

Since the interim semi-annual dividends significantly differ in magnitude from the final dividend, the dividend rate is calculated as total dividend for the most recent year.

Dividend rate = $0.35 + $0.90 = $1.25

Trailing dividend yield = Dividend rate / Current price per share

Trailing dividend yield = 1.25 / 35.80 = 3.49%

Leading dividend yield = Next year's dividend / Current price per share

Leading dividend yield = 1.60 / 35.80 = 4.47%

Question 81
L2EQ-TBX112-1502
LOS: LOS-8620
Lesson Reference: Lesson 6: Enterprise Value Multiples
Difficulty: easy
Longneck Industries Inc. is a manufacturer of children's soft toys. At the reporting date, the company had total shareholder's equity of $500 million, 10 million shares outstanding, and a share price of $65. Cash and cash equivalents on the balance sheet equate to $35 million. Longneck has total liabilities of $300 million, of which $60 million are non-interest-bearing current liabilities. The company has net income of $40 million, an interest charge of $10 million, taxes of $5 million, and depreciation charges of $55 million. The EV/EBITDA ratio for Longneck is *closest* to:

○ 6.4x.

● 7.8x.

○ 8.1x.

Rationale

✓ **This Answer is Correct**

The market value of equity is $65 × 10 million = $650 million.

The market value of interest-bearing debt is $300 million – $60 million = $240 million.

Hence, EV = Market value of equity + Market value of debt – Cash

= $650 million + $240 million – $35 million = $855 million.

The EBITDA is equal to net income plus taxes plus interest plus depreciation, which in this case equals $40 million + $5 million + $10 million + $55 million = $110 million.

Hence, EV/EBITDA = 855/110 = 7.77x.

Question 82

L2R36TB-AC024-1512

LOS: LOS-8520

Lesson Reference: Lesson 2: Price Multiples Based on the Method of Comparables

Difficulty: medium

Presentation Devices has indicated in footnotes to its financial statements that the company engages in bill-and-hold transactions equal to approximately 5 percent of sales. An analyst wishes to use the P/S ratio for valuation of Presentation Devices relative to its peers. With regard to bill-and-hold transactions, the *best* course of action for the analyst is to:

○ Reduce sales by greater than 5 percent.

○ Increase sales by 5 percent.

● Reduce sales by 5 percent.

Rationale

✗ **Reduce sales by greater than 5 percent.**

The analyst should reduce reported sales by 5 percent to recognize that bill-and-hold sales may actually never result in actual revenues. Some of the sales may take place, and there is no justification for reducing sales by some amount greater than 5 percent.

Rationale

✗ **Increase sales by 5 percent.**

The analyst should reduce reported sales by 5 percent to recognize that bill-and-hold sales may actually never result in actual revenues. Some of the sales may take place, and there is no justification for reducing sales by some amount greater than 5 percent.

Rationale

✓ **Reduce sales by 5 percent.**

The analyst should reduce reported sales by 5 percent to recognize that bill-and-hold sales may actually never result in actual revenues. Some of the sales may take place, and there is no justification for reducing sales by some amount greater than 5 percent.

Question 83
L2EQ-TB0029-1412
LOS: LOS-8510
Lesson Reference: Lesson 2: Price Multiples Based on the Method of Comparables
Difficulty: medium

An analyst is concerned about the accounting practices in a certain market and wishes to use the price multiple that is likely to be least affected by manipulation of company accounts. Which of the following multiples is the analyst *most likely* to prefer in this case?

○ Price to earnings.

○ Price to book.

● Price to sales.

Rationale

✓ **This Answer is Correct**

Both earnings and book value of equity are likely to be highly affected by the accounting choices of management and subject to distortion should any manipulation be present in the accounts. Sales are generally less subject to distortion or manipulation than are other fundamentals such as EPS or book value.

Question 84
L2R36TB-AC009-1512
LOS: LOS-8530
Lesson Reference: Lesson 3: Normalized Earnings and the Earnings Yield
Difficulty: medium

Big Machines, Inc. has basic earnings of $5,681 million in the trailing 12-month period, or $8.71 per common share. Diluted EPS is $8.48. Which of the following is *closest* to the number of common shares Big Machines assumes could be issued as the result of stock-based compensation awards?

● 17.7 million shares.
○ 34.2 million shares.
○ 76.9 million shares.

Rationale

✓ **17.7 million shares.**

First, determine the number of common shares:

$$\text{CSO for basic EPS} = \frac{\text{E}}{\text{EPS}} = \frac{5{,}681\text{ million}}{8.71} = 652.2\text{ milllion}$$

Next, determine the number of shares required to result in EPS of $8.48:

$$\text{CSO for diluted EPS} = \frac{5{,}681\text{ million}}{8.48} = 669.9\text{ million}$$

Net new shares issued would be 17.7 million (669.9 – 652.2).

Rationale

✗ **34.2 million shares.**

First, determine the number of common shares:

$$\text{CSO for basic EPS} = \frac{\text{E}}{\text{EPS}} = \frac{5{,}681\text{ million}}{8.71} = 652.2\text{ milllion}$$

Next, determine the number of shares required to result in EPS of $8.48:

$$\text{CSO for diluted EPS} = \frac{5{,}681\text{ million}}{8.48} = 669.9\text{ million}$$

Net new shares issued would be 17.7 million (669.9 – 652.2).

Rationale

☒ **76.9 million shares.**

First, determine the number of common shares:

$$\text{CSO for basic EPS} = \frac{\text{E}}{\text{EPS}} = \frac{5{,}681\text{ million}}{8.71} = 652.2\text{ milllion}$$

Next, determine the number of shares required to result in EPS of $8.48:

$$\text{CSO for diluted EPS} = \frac{5{,}681\text{ million}}{8.48} = 669.9\text{ million}$$

Net new shares issued would be 17.7 million (669.9 – 652.2).

Question 85

L2R36TB-AC033-1512

LOS: LOS-8640

Lesson Reference: Lesson 7: International Considerations, Momentum Valuation Indicators, and Issues in Practice with Valuation Indicators

Difficulty: medium

Blanco Company just reported quarterly earnings of $1.56. The mean analyst estimate was $2.00, with a standard deviation of estimates equal to $0.30. The scaled earnings surprise for Blanco company will be *closest to*:

○ 1.47

○ –0.65

● –1.47

Rationale

✗ **1.47**

The scaled earnings surprise (unexpected earnings) for Blanco Company is:

$$\mathrm{UE}_t = \frac{\mathrm{EPS}_t - \mathrm{EPS}\,(\mathrm{E}_t)}{\sigma_{\mathrm{EPS}(\mathrm{E}_t)}} = \frac{\$1.56 - 2.00}{\$0.30} = -1.47$$

Rationale

✗ **–0.65**

The scaled earnings surprise (unexpected earnings) for Blanco Company is:

$$\mathrm{UE}_t = \frac{\mathrm{EPS}_t - \mathrm{EPS}\,(\mathrm{E}_t)}{\sigma_{\mathrm{EPS}(\mathrm{E}_t)}} = \frac{\$1.56 - 2.00}{\$0.30} = -1.47$$

Rationale

✓ **–1.47**

The scaled earnings surprise (unexpected earnings) for Blanco Company is:

$$\mathrm{UE}_t = \frac{\mathrm{EPS}_t - \mathrm{EPS}\,(\mathrm{E}_t)}{\sigma_{\mathrm{EPS}(\mathrm{E}_t)}} = \frac{\$1.56 - 2.00}{\$0.30} = -1.47$$

Question 86
L2R36TB-AC043-1512
LOS: LOS-8570
Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)
Difficulty: medium

A firm has a retention ratio of 60 percent of earnings. Its earnings growth has been 7 percent annually for the last three years and will likely continue for five more years at that rate. Its standard deviation of earnings growth has been 3 percent. An analyst attempting to value the company using cross-sectional regression has determined an equation of:

$$\mathrm{P/E_F} = 10.5 + 2.5\,\mathrm{DPR} + 2.75\,\mathrm{EGR} - 4.5\sigma_{\mathrm{EGR}}$$

In the equation, DPR is the dividend payout rate, EGR is the earnings growth rate, and σEGR is the standard deviation of the earnings growth rate. Based on this information the analyst would most likely calculate a forward P/E for this company *closest to*:

● 11.56
○ 11.69
○ 12.06

Rationale
✓ **11.56**
Forward P/E forecast using the regression equation is:

$$\begin{aligned}\mathrm{P/E_F} = 10.5 + 2.5\,\mathrm{DPR} + 2.75 \quad \mathrm{EGR} - 4.5\sigma_{\mathrm{EGR}} &= 10.5 + 2.5\,(1 - 0.60) + 2.75\,(0.07) \\ &-4.5\,(0.03) = 11.56\end{aligned}$$

Rationale
✗ **11.69**
Forward P/E forecast using the regression equation is:

$$\begin{aligned}\mathrm{P/E_F} = 10.5 + 2.5\,\mathrm{DPR} + 2.75 \quad \mathrm{EGR} - 4.5\sigma_{\mathrm{EGR}} &= 10.5 + 2.5\,(1 - 0.60) + 2.75\,(0.07) \\ &-4.5\,(0.03) = 11.56\end{aligned}$$

Rationale
✗ **12.06**
Forward P/E forecast using the regression equation is:

$$\mathrm{P/E_F} = 10.5 + 2.5\,\mathrm{DPR} + 2.75 \quad \mathrm{EGR} - 4.5\sigma_{\mathrm{EGR}} = 10.5 + 2.5\,(1 - 0.60) + 2.75\,(0.07)$$
$$-4.5\,(0.03) = 11.56$$

Question 87
L2EQ-PQ3503-1411
LOS: LOS-8490
Lesson Reference: Lesson 1: Introduction: The Method of Comparables versus the Method of Forecasted Fundamentals
Difficulty: medium

The stock of Jason Investments is currently trading at $38.5. The following information is also available:

Next year's expected EPS = $3.5

Dividend payout ratio = 40%

Required rate of return on equity = 11%

Long-term growth rate = 6%

Based on the stock's actual leading P/E relative to its justified leading PE, it is *most likely*:

○ Undervalued
○ Fairly valued
● Overvalued

Rationale
✓ **This Answer is Correct**

Leading P/E multiple based on market price = 38.5 / 3.5 = 11

Next year's expected dividend = $3.5 × 40% = $1.40

Intrinsic value = D_1 / (r − g) = 1.40 / (0.11 − 0.06) = 28

Leading P/E ratio based on intrinsic value = 28 / 3.5 = 8

Since the stock's leading P/E multiple based on intrinsic value is less than its P/E multiple based on market price, it is said to be overvalued.

Question 88
L2EQ-TBB219-1412
LOS: LOS-8580
Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)
Difficulty: medium

An analyst collects the following data for three securities in the same industrial sector:

Stock	Current Multiple	Growth	Risk
Three Stripes Inc.	Low	High	High
Trotters Independent Traders LLC	High	Low	High

Using the method of comparables, which of the following statements is *most likely* to be accurate?

○ Three Stripes Inc. is overvalued.
○ Three Stripes Inc. is fairly valued.
● Trotters Independent Traders LLC is overvalued.

Rationale

✓ **This Answer is Correct**

Companies with higher-than-average growth would be expected to have high P/E multiples. Companies with high risk would be expected to have low P/E multiples. Trotters Independent Traders LLC should have a low multiple on this basis and hence is overvalued.

Question 89

L2R36TB-AC040-1512

LOS: LOS-8550

Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)

Difficulty: medium

A subject company has a P/E multiple that is higher than its peers. The *best* explanation for this, everything else being equal, is that the company has a:

● higher growth rate.

○ higher required return.

○ lower dividend payout ratio.

Rationale

✓ **higher growth rate.**

Based on the formula using fundamentals, a higher P/E would most likely result from a higher growth rate. Although a lower dividend payout ratio tends to create a higher growth rate, the other variables were held constant for this analysis.

Rationale

✗ **higher required return.**

Based on the formula using fundamentals, a higher P/E would most likely result from a higher growth rate. Although a lower dividend payout ratio tends to create a higher growth rate, the other variables were held constant for this analysis.

Rationale

✗ **lower dividend payout ratio.**

Based on the formula using fundamentals, a higher P/E would most likely result from a higher growth rate. Although a lower dividend payout ratio tends to create a higher growth rate, the other variables were held constant for this analysis.

Question 90

L2EQ-TB0036-1412

LOS: LOS-8680

Lesson Reference: Lesson 4: Price Multiples Based on the Method of Forecasted Fundamentals (Justified Multiples)

Difficulty: medium

A company with cost of equity of 12% has just raised $25 million through issuing 3 million shares and has engaged in a project that will lead to negative residual income of $1 million for the foreseeable future. In an efficient market, which of the following scenarios is *most likely* to follow these transactions?

● The share price will fall by 33%.

○ The share price will fall by 10%.

○ The share price will remain flat.

Rationale

✓ **This Answer is Correct**

The company has issued shares at a price of $25 million / 3 million = $8.33. The company will destroy value of $1 million per year, which equals 1 million / 3 million = $0.33 per share. Discounted at 12% cost of equity, the present value of the perpetuity is $0.33 / 0.12 = $2.78. This movement in share price will be a fall of $2.78 / $8.33 = 33%.

Question 91
L2EQ-PQ3530-1411
LOS: LOS-8630
Lesson Reference: Lesson 7: International Considerations, Momentum Valuation Indicators, and Issues in Practice with Valuation Indicators
Difficulty: medium

Consider the following information:

Percentage of inflation in costs that the company can pass through to revenue = 60%

Cost inflation for the company = 5%

Real rate of return required on equity = 8%

The justified P/E ratio for the company is closest to:

- ○ 9
- ● 10
- ○ 12

Rationale

✓ **This Answer is Correct**

Justified P/E = $1 / [0.08 + (1 - 0.6)(0.05)] = 10$

Question 92

L2R36TB-AC023-1512
LOS: LOS-8510
Lesson Reference: Lesson 2: Price Multiples Based on the Method of Comparables
Difficulty: medium

Two publishing companies have decided to swap (barter) advertising with each other. Fox Company sells $500,000 in advertising to Hound Company, and Hound Company sells $500,000 in advertising to Fox Company. Rather than exchange funds, they agree to net the expenses and revenues with each other. In considering Fox's and Hound's P/S before and after the transaction relative to their peers, it is *most likely* that the transaction will result in the companies appearing more relatively:

○ overvalued as compared to before the transaction.
○ fairly valued as compared to before the transaction.
● undervalued as compared to before the transaction.

Rationale

✗ **overvalued as compared to before the transaction.**

This transaction will most likely make both companies appear relatively undervalued in comparison to their peers. Sales will increase to reflect the transaction, but earnings will not improve. The P/S ratios for both companies will appear lower—indicating relative undervaluation—although the transaction has no effect on earnings or cash flow.

Rationale

✗ **fairly valued as compared to before the transaction.**

This transaction will most likely make both companies appear relatively undervalued in comparison to their peers. Sales will increase to reflect the transaction, but earnings will not improve. The P/S ratios for both companies will appear lower—indicating relative undervaluation—although the transaction has no effect on earnings or cash flow.

Rationale

✓ **undervalued as compared to before the transaction.**

This transaction will most likely make both companies appear relatively undervalued in comparison to their peers. Sales will increase to reflect the transaction, but earnings will not improve. The P/S ratios for both companies will appear lower—indicating relative undervaluation—although the transaction has no effect on earnings or cash flow.