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EQUITY VALUATION CONCEPTS  
AND BASIC TOOLS

1. The constant-growth dividend discount model would typically be most appropriate in valuing a stock of a:
  - (A) new venture expected to retain all earnings for several years.
  - (B) rapidly growing company.
  - (C) company in a mature-stage industry.
  
2. The free cash flow to equity model is best described as a(n):
  - (A) enterprise value model.
  - (B) present value model.
  - (C) single-factor model.
  
3. A company has just paid a \$2.00 dividend per share and dividends are expected to grow at a rate of 6% indefinitely. If the required return is 13%, what is the value of the stock today?
  - (A) \$34.16.
  - (B) \$30.29.
  - (C) \$32.25.
  
4. A stock has a steady 5% growth rate in dividends. The required rate of return for stocks of this risk class is 15%. The stock is expected to pay a \$1 dividend this coming year. The expected value of the stock at the end of the fourth year is:
  - (A) \$14.21.
  - (B) \$12.16.
  - (C) \$16.32.
  
5. An enterprise value model for equity valuation is most accurately described as a(n):
  - (A) asset-based model.
  - (B) discounted cash flow model.
  - (C) multiplier model.
  
6. If a preferred stock that pays a \$11.50 dividend is trading at \$88.46, what is the market's required rate of return for this security?
  - (A) 13.00%.
  - (B) 11.76%.
  - (C) 7.69%.

7. Donna Drake is interested in a stock that is expected to pay a dividend of \$1.50 in one year, \$1.75 in two years, and \$2.05 in three years. Drake expects to sell the stock for \$43.87 after three years, after which the dividend will grow at 7% annually. If Drake requires a 12% return on the stock, the price she is willing to pay today is closest to:
- (A) \$34.  
 (B) \$36.  
 (C) \$38.
8. Given the following information, compute the implied dividend growth rate.
- Profit margin = 10.0%
  - Total asset turnover = 2.0 times
  - Financial leverage = 1.5 times
  - Dividend payout ratio = 40.0%
- (A) 12.0%.  
 (B) 18.0%.  
 (C) 4.5%.
9. A valuation model based on the cash flows that a firm will have available to pay dividends in the future is best characterized as a(n):
- (A) free cash flow to equity model.  
 (B) free cash flow to the firm model.  
 (C) infinite period dividend discount model.
10. If a company has a "0" earnings retention rate, the firm's P/E ratio will equal:
- (A)  $1 / k$   
 (B)  $D/P + g$   
 (C)  $k + g$
11. Calculate the value of a common stock that last paid a \$2.00 dividend if the required rate of return on the stock is 14 percent and the expected growth rate of dividends and earnings is 6 percent. What growth model is an example of this calculation?

	Value of stock	Growth model
(A)	\$26.50	Gordon growth
(B)	\$26.50	Supernormal growth
(C)	\$25.00	Gordon growth

12. The purchaser of a stock will receive the next dividend if the order is filled before the:
- (A) ex-dividend date.  
 (B) holder-of-record date.  
 (C) payment date.

13. Which of the following statements concerning security valuation is least accurate?
- (A) A firm with a \$1.50 dividend last year, a dividend payout ratio of 40%, a return on equity of 12%, and a 15% required return is worth \$18.24.  
The best way to value a company with high and unsustainable growth that exceeds
  - (B) the required return is to use the temporary supernormal growth (multistage) model.
  - (C) The best way to value a company expecting to pay a constantly growing dividend as from the third year is to use the Gordon growth model.
14. Use the following information on Brown Partners, Inc. to compute the current stock price.
- Dividend just paid = \$6.10
  - Expected dividend growth rate = 4%
  - Expected stock price in one year = \$60
  - Risk-free rate = 3%
  - Risk premium on the stock = 12%
- (A) \$57.70.
  - (B) \$59.55.
  - (C) \$57.48.
15. Assume the following information for a stock:
- |                                   |   |      |
|-----------------------------------|---|------|
| Beta coefficient                  | = | 1.50 |
| Risk-free rate                    | = | 6%   |
| Expected rate of return on market | = | 14%  |
| Dividend payout ratio             | = | 30%  |
| Expected dividend growth rate     | = | 11   |
- The estimated earnings multiplier (P/E ratio) is closest to:
- (A) 4.29.
  - (B) 10.00.
  - (C) 3.33.
16. A firm has an expected dividend payout ratio of 50%, a required rate of return of 12% and a constant growth rate of 6%. If earnings for the next year are expected to be \$4.50, the value of the stock today is closest to:
- (A) \$33.50.
  - (B) \$37.50.
  - (C) \$39.75.
17. A stock has a required rate of return of 15%, a constant growth rate of 10%, and a dividend payout ratio of 45%. The stock's justified price-earnings ratio is closest to:
- (A) 3.0 times.
  - (B) 4.5 times.
  - (C) 9.0 times.

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18. A high growth rate of dividends is most likely to be consistent with:
- (A) a high dividend payout ratio.
  - (B) a high ROE.
  - (C) a low retention rate.
19. All else equal, an increase in a company's growth rate will most likely cause its P/E ratio to:
- (A) decrease.
  - (B) either increase or decrease.
  - (C) increase.
20. An analyst projects the following pro forma financial results for Magic Holdings, Inc., in the next year:
- Sales of \$1,000,000
  - Earnings of \$200,000
  - Total assets of \$750,000
  - Equity of \$500,000
  - Dividend payout ratio of 62.5%
  - Shares outstanding of 50,000
  - Risk free interest rate of 7.5%
  - Expected market return of 13.0%
  - Stock Beta at 1.8
- If the analyst assumes Magic Holdings, Inc. will produce a constant rate of dividend growth, the value of the stock is closest to:
- (A) \$44.
  - (B) \$104.
  - (C) \$19.
21. One advantage to using the price/book value (P/B) ratio over using the price/earnings (P/E) ratio is that P/B can be used when:
- (A) the firm is in a slow growth phase.
  - (B) stock markets are volatile.
  - (C) earnings are negative.
22. Shareholders selling shares between the ex-dividend date and holder-of-record date:
- (A) do not receive the dividend, which is paid to the share buyer.
  - (B) do not receive the dividend, which stays with the company.
  - (C) receive the dividend.
23. Gourmet and Company has the following information:
- Current market value = \$250 million
  - Current book value = \$225 million

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- Sales = \$750 million
- Earnings = \$75 million
- Cash flow = \$125 million
- Stock price = \$7.50

Which of the following statements regarding Gourmet and Company is most accurate?

- (A) The price/book ratio is 0.90.
- (B) The price/sales ratio is 0.33.
- (C) The price/earnings ratio is 33.3.

24. Robert Higgins is estimating the price-earnings (P/E) ratio that will be appropriate for an index at the end of next year. He has estimated that:

- Expected annual dividends will increase by 10% compared to this year.
- Expected earnings per share will increase by 10% compared to this year.
- The expected growth rate of dividends will be the same as the current estimate of 5%.
- The required rate of return will rise from 8% to 11%.

Compared to the current P/E, the end-of-the-year P/E will be:

- (A) 10% higher.
- (B) 50% lower.
- (C) 2% higher.

25. The earnings multiplier model, derived from the dividend discount model, expresses a stock's P/E ratio ( $P_0/E_1$ ) as the:

- (A) expected dividend payout ratio divided by the sum of the expected dividend growth rate and the required return on equity.
- (B) expected dividend payout ratio divided by the difference between the required return on equity and the expected dividend growth rate.
- (C) expected dividend in one year divided by the difference between the required return on equity and the expected dividend growth rate.

26. Calculate the value of a preferred stock that pays an annual dividend of \$5.50 if the current market yield on AAA rated preferred stock is 75 basis points above the current T-Bond rate of 7%.

- (A) \$42.63.
- (B) \$70.97.
- (C) \$78.57.

27. A firm will not pay dividends until four years from now. Starting in year four dividends will be \$2.20 per share, the retention ratio will be 40%, and ROE will be 15%. If  $k = 10\%$ , what should be the value of the stock?

- (A) \$58.89.
- (B) \$55.25.
- (C) \$41.32.

28. Which of the following statements about the constant growth dividend discount model (DDM) in its application to investment analysis is least accurate? The model:
- (A) can't be applied when  $g > K$ .
  - (B) is best applied to young, rapidly growing firms.
  - (C) is inappropriate for firms with variable dividend growth.
29. Rock, Inc. maintains a policy of paying 30% of earnings to its investors in the form of dividends. Rock is expected to generate a return on equity of 9.3%. Rock's beta is 1.5. The market risk premium is 6% and the risk-free rate is 3%. Rock's required rate of return is closest to:
- (A) 9.0%.
  - (B) 9.3%.
  - (C) 12.0%.
30. Using the one-year holding period and multiple-year holding period dividend discount model (DDM), calculate the change in value of the stock of Monster Burger Place under the following scenarios. First, assume that an investor holds the stock for only one year. Second, assume that the investor intends to hold the stock for two years. Information on the stock is as follows:
- Last year's dividend was \$2.50 per share.
  - Dividends are projected to grow at a rate of 10.0% for each of the next two years.
  - Estimated stock price at the end of year 1 is \$25 and at the end of year 2 is \$30.
  - Nominal risk-free rate is 4.5%.
  - The required market return is 10.0%.
  - Beta is estimated at 1.0.

The value of the stock if held for one year and the value if held for two years are:

	Year one	Year two
(A)	\$25.23	\$29.79
(B)	\$25.23	\$35.25
(C)	\$27.50	\$35.25

31. Assuming all other factors remain unchanged, which of the following would most likely lead to a decrease in the market P/E ratio?
- (A) A rise in the stock risk premium.
  - (B) An increase in the dividend payout ratio.
  - (C) A decline in the risk-free rate.
32. Jaylin Company declares a dividend that will be paid on August 28. The holder-of-record date is August 16. Will an investor who buys Jaylin stock on August 15 receive this dividend?
- (A) No.
  - (B) Yes, because the purchase occurs before the payment date.
  - (C) Yes, because the purchase occurs before the holder-of-record date.

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33. A stock has the following elements: last year's dividend = \$1, next year's dividend is 10% higher, the price will be \$25 at year-end, the risk-free rate is 5%, the market risk premium is 5%, and the stock's beta is 1.5. The stock's price is closest to:
- (A) \$20.20.
  - (B) \$23.20.
  - (C) \$23.50.
34. If a stock sells for \$50 that has an expected annual dividend of \$2 and has a sustainable growth rate of 5%, what is the market discount rate for this stock?
- (A) 10.0%.
  - (B) 7.5%.
  - (C) 9.0%.
35. Assume that the expected dividend growth rate (g) for a firm decreased from 5% to zero. Further, assume that the firm's cost of equity (k) and dividend payout ratio will maintain their historic levels. The firm's P/E ratio will most likely:
- (A) decrease.
  - (B) become undefined.
  - (C) increase.
36. Assume that at the end of the next year, Company A will pay a \$2.00 dividend per share, an increase from the current dividend of \$1.50 per share. After that, the dividend is expected to increase at a constant rate of 5%. If an investor requires a 12% return on the stock, what is the value of the stock?
- (A) \$28.57.
  - (B) \$30.00.
  - (C) \$31.78.
37. According to the earnings multiplier model, which of the following factors is the least important in estimating a stock's price-to-earnings ratio? The:
- (A) expected dividend payout ratio.
  - (B) estimated required rate of return on the stock.
  - (C) historical dividend payout ratio.
38. If all other factors remain unchanged, which of the following would most likely reduce a company's price/earnings ratio?
- (A) The dividend payout ratio increases, and the dividend growth rate increases.
  - (B) The required rate of return increases, and the dividend payout ratio decreases.
  - (C) The dividend growth rate increases, and the required rate of return decreases.
39. A company with a return on equity (ROE) of 27%, required return on equity (ke) of 20%, and a dividend payout ratio of 40% has an implied sustainable growth rate closest to:
- (A) 10.80%.
  - (B) 12.00%.
  - (C) 16.20%.



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40. An asset-based valuation model is most appropriate for a company that:
- (A) is expected to remain profitable for the foreseeable future.
  - (B) has a high proportion of intangible assets among its total assets.
  - (C) is likely to be liquidated.
41. Given the following information, compute price/sales.
- Book value of assets = \$550,000.
  - Total sales = \$200,000.
  - Net income = \$20,000.
  - Dividend payout ratio = 30%.
  - Operating cash flow = \$40,000.
  - Price per share = \$100.
  - Shares outstanding = 1,000.
  - Book value of liabilities = \$500,000.
- (A) 2.50X.
  - (B) 0.50X.
  - (C) 2.00X.
42. A stock's price currently is \$100. An analyst forecasts the following for the stock:
- The normalized trailing price earnings (P/E) ratio will be 12x.
  - The stock is expected to pay a \$5 dividend this coming year on projected earnings of \$10 per share.
- If the analyst were to buy and hold the stock for the year, the projected rate of return based on these forecasts is closest to:
- (A) 25%.
  - (B) 20%.
  - (C) 15%.
43. An enterprise value multiple is typically calculated as the ratio of enterprise value to a measure of:
- (A) net income.
  - (B) operating income.
  - (C) pretax income.
44. A firm has a return on equity (ROE) of 15% and a dividend payout rate of 80%. If last year's dividend was \$0.80 and the required return on equity is 10%, the stock price today is closest to:
- (A) \$10.87.
  - (B) \$9.96.
  - (C) \$11.77.
45. Given the following estimated financial results for the next period, value the stock of Fishn Chips, Inc., using the infinite period dividend discount model (DDM).
- Sales of \$1,000,000.
  - Earnings of \$150,000.
  - Total assets of \$800,000.



- Equity of \$400,000.
- Dividend payout ratio of 60.0%.
- Average shares outstanding of 75,000.
- Real risk free interest rate of 4.0%.
- Expected inflation rate of 3.0%.
- Expected market return of 13.0%.
- Stock Beta at 2.1.

The per share value of FishnChips stock is approximately: (Note: Carry calculations out to at least 3 decimal places.)

- (A) \$17.91.
- (B) \$26.86.
- (C) \$30.89.

46. The capital asset pricing model can be used to estimate which of the following inputs to the dividend discount model?

- (A) The expected inflation rate.
- (B) The expected growth rate in dividends.
- (C) The required return on equity.

47. The yield on a company's 7.5%, \$50 par preferred stock is 6%. The value of the preferred stock is closest to:

- (A) \$62.50.
- (B) \$12.50.
- (C) \$50.00.

48. The preferred stock of the Delco Investments Company has a par value of \$150 and a dividend of \$11.50. A shareholder's required return on this stock is 14%. What is the maximum price he would pay?

- (A) \$150.00.
- (B) \$54.76.
- (C) \$82.14.

49. Which valuation method is most appropriate to estimate a floor value for a firm being liquidated?

- (A) Asset-based.
- (B) Multiple based on fundamentals.
- (C) Discounted cash flow.

50. According to the earnings multiplier model, all else equal, as the required rate of return on a stock increases, the:

- (A) earnings per share will increase.
- (B) P/E ratio will decrease.
- (C) P/E ratio will increase.

51. All of the following factors affects the firm's P/E ratio EXCEPT:
- (A) the expected interest rate on the bonds of the firm.
  - (B) the required rate of return.
  - (C) growth rates of dividends.
52. Which of the following shows the dividend payment chronology in its proper sequence?
- (A) Declaration date, ex-dividend date, holder-of-record date, payment date.
  - (B) Declaration date, holder-of-record date, ex-dividend date, payment date.
  - (C) Ex-dividend date, holder-of-record date, declaration date, payment date.
53. Of the following types of firm, which is most suitable for P/B ratio analysis?
- (A) A firm with accounting standards consistent to other firms.
  - (B) A service industry firm without significant fixed assets.
  - (C) A firm with accounting standards different from other firms.
54. Company B paid a \$1.00 dividend per share last year and is expected to continue to pay out 40% of its earnings as dividends for the foreseeable future. If the firm is expected to earn a 10% return on equity in the future, and if an investor requires a 12% return on the stock, the stock's value is closest to:
- (A) \$17.67.
  - (B) \$16.67.
  - (C) \$12.50.
55. What is the value of a stock that paid a \$0.25 dividend last year, if dividends are expected to grow at a rate of 6% forever? Assume that the risk-free rate is 5%, the expected return on the market is 10%, and the stock's beta is 0.5.
- (A) \$16.67.
  - (B) \$17.67.
  - (C) \$3.53.
56. According to the earnings multiplier model, a stock's P/E ratio ( $P_0/E_1$ ) is affected by all of the following EXCEPT the:
- (A) expected stock price in one year.
  - (B) required return on equity.
  - (C) expected dividend payout ratio.
57. Witronix is a rapidly growing U.S. company that has increased free cash flow to equity and dividends at an average rate of 25% per year for the last four years. The present value model that is most appropriate for estimating the value of this company is a:
- (A) Gordon growth model.
  - (B) multistage dividend discount model.
  - (C) single stage free cash flow to equity model.

58. The Sustainable Growth Rate is equal to:
- (A)  $(ROE) \times (RR)$ .
  - (B)  $(ROE) \times (1-RR)$ .
  - (C)  $(ROE) \times (1-FRR)$ .
59. A firm has a profit margin of 10%, an asset turnover of 1.2, an equity multiplier of 1.3, and an earnings retention ratio of 0.5. What is the firm's internal growth rate?
- (A) 4.5%.
  - (B) 6.7%.
  - (C) 7.8%.
60. Which of the following is least likely an advantage of using price-to-book value (PBV) multiples in stock valuation?
- (A) PBV ratios can be compared across similar firms if accounting standards are consistent.
  - (B) Book values are highly useful measures for firms in service industries.
  - (C) Book value is often positive, even when earnings are negative.
61. The rationale for using dividend discount models to value equity is that the:
- (A) inputs are easily estimated and the model's estimates are robust.
  - (B) intrinsic value of a stock is the present value of its future dividends.
  - (C) model works well for the finite period of time over which dividends are paid.
62. A stock has a required return of 14% percent, a constant growth rate of 5% and a retention rate of 60%. The firm's P/E ratio should be:
- (A) 4.44.
  - (B) 5.55.
  - (C) 6.66.
63. A stock is expected to pay a dividend of \$1.50 at the end of each of the next three years. At the end of three years the stock price is expected to be \$25. The equity discount rate is 16 percent. What is the current stock price?
- (A) \$19.39.
  - (B) \$17.18.
  - (C) \$24.92.
64. An equity valuation model that values a firm based on the market value of its outstanding debt and equity securities, relative to a firm fundamental, is best described as:
- (A) an asset-based model.
  - (B) an enterprise value model.
  - (C) a discounted cash flow model.

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65. Which type of cash dividend is most likely to be declared by a cyclical firm during good times?
- (A) Regular dividend.
  - (B) Special dividend.
  - (C) Stock dividend.
66. Use the following information to determine the value of River Gardens' common stock:
- Expected dividend payout ratio is 45%.
  - Expected dividend growth rate is 6.5%.
  - River Gardens' required return is 12.4%.
  - Expected earnings per share next year are \$3.25.
- (A) \$27.25.
  - (B) \$30.12.
  - (C) \$24.80.
67. Assume a company has earnings per share of \$5 and pays out 40% in dividends. The earnings growth rate for the next 3 years will be 20%. At the end of the third year the company will start paying out 100% of earnings in dividends and earnings will increase at an annual rate of 5% thereafter. If a 12% rate of return is required, the value of the company is closest to:
- (A) \$102.80.
  - (B) \$55.70.
  - (C) \$92.90.
68. Preferred stock most likely has a:
- (A) variable dividend and no maturity.
  - (B) fixed dividend and maturity.
  - (C) fixed dividend and no maturity.
69. A company last paid a \$1.00 dividend, the current market price of the stock is \$20 per share and the dividends are expected to grow at 5 percent forever. What is the required rate of return on the stock?
- (A) 10.00%.
  - (B) 10.25%.
  - (C) 9.78%.
70. A payment to shareholders in the form of additional shares instead of cash is most accurately characterized as a:
- (A) stock split.
  - (B) stock dividend.
  - (C) private placement.

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71. Asset-based valuation models are most appropriate for a firm that:
- (A) has cyclical earnings.
  - (B) has significant intangible assets.
  - (C) is being liquidated.
72. Assuming a discount rate of 15%, the price of a preferred stock with a dividend of \$10 is closest to:
- (A) \$150.
  - (B) \$105.
  - (C) \$67.
73. Beth Knight, CFA, and David Royal, CFA, are independently analyzing the value of Bishop, Inc., stock. Bishop paid a dividend of \$1 last year. Knight expects the dividend to grow by 10% in each of the next three years, after which it will grow at a constant rate of 4% per year. Royal also expects a temporary growth rate of 10% followed by a constant growth rate of 4%, but he expects the supernormal growth to last for only two years. Knight estimates that the required return on Bishop stock is 9%, but Royal believes the required return is 10%. Royal's valuation of Bishop stock is approximately:
- (A) \$5 less than Knight's valuation.
  - (B) \$5 greater than Knight's valuation.
  - (C) equal to Knight's valuation.
74. Which of the following is least likely a reason the price to cash flow (P/CF) model has grown in popularity?
- (A) CFs are more easily estimated than future dividends.
  - (B) CFs are used extensively in valuation models.
  - (C) CFs are generally more difficult to manipulate than earnings.
75. General, Inc., has net income of \$650,000 and one million shares outstanding. The profit margin is 6 percent and General, Inc., is selling for \$30.00. The price/sales ratio is equal to:
- (A) 10.83.
  - (B) 2.77.
  - (C) 0.65.
76. Asset-based models are most appropriate when examining firms:
- (A) that hold primarily liquid assets.
  - (B) with the same stock prices.
  - (C) with older assets compared to those with newer assets.

77. At the end of the last 12-month period, Romano's Italian Foods had net income of \$16.68 million and equity of \$115 million. Romano's declared a \$7.5 million dividend for the year.

Using internally generated funds, Romano's can grow its equity by approximately:

- (A) 14.5% per year.
- (B) 8.0% per year.
- (C) 10.0% per year.

78. Day and Associates is experiencing a period of abnormal growth. The last dividend paid by Day was \$0.75. Next year, they anticipate growth in dividends and earnings of 25% followed by negative 5% growth in the second year. The company will level off to a normal growth rate of 8% in year three and is expected to maintain an 8% growth rate for the foreseeable future. Investors require a 12% rate of return on Day. The value of Day stock today is closest to:

- (A) \$18.65.
- (B) \$20.70.
- (C) \$24.05.

79. The following data pertains to a common stock:

- It will pay no dividends for two years.
- The dividend three years from now is expected to be \$1.
- Dividends are expected to grow at a 7% rate from that point onward.

If an investor requires a 17% return on this stock, what will they be willing to pay for this stock now?

- (A) \$ 6.24.
- (B) \$ 7.30.
- (C) \$10.00.

80. Utilizing the infinite period dividend discount model, all else held equal, if the required rate of return ( $K_e$ ) decreases, the model yields a price that is:

- (A) reduced, due to the reduction in discount rate.
- (B) increased, due to a smaller spread between required return and growth.
- (C) reduced, due to increased spread between growth and required return.

81. A stock has the following data associated with it:

- A required rate of return of 14%.
- A return on equity of 15%.
- An earnings retention rate of 40%.

The stock's justified price-to-earnings ratio is closest to:

- (A) 6.7.
- (B) 5.0.
- (C) 7.5.

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82. A company's required return on equity is 15% and its dividend payout ratio is 55%. If its return on equity (ROE) is 17% and its beta is 1.40, then its sustainable growth rate is closest to:
- (A) 6.75%.  
 (B) 7.65%.  
 (C) 9.35%.
83. An analyst studying Albion Industries determines that the average EV/EBITDA ratio for Albion's industry is 10. The analyst obtains the following information from Albion's financial statements:
- EBITDA = £11,000,000  
 Market value of debt = £30,000,000  
 Cash = £1,000,000
- Based on the industry's average enterprise value multiple, what is the equity value of Albion Industries?
- (A) £110,000,000.  
 (B) £80,000,000.  
 (C) £81,000,000.
84. Use the following information and the dividend discount model to find the value of GoFlower, Inc.'s, common stock.
- Last year's dividend was \$3.10 per share.
  - The growth rate in dividends is estimated to be 10% forever.
  - The return on the market is expected to be 12%.
  - The risk-free rate is 4%.
  - GoFlower's beta is 1.1.
- (A) \$34.95.  
 (B) \$26.64.  
 (C) \$121.79.
85. The required rate of return on equity used as an input to the dividend discount model is influenced by each of the following factors EXCEPT:
- (A) the expected inflation rate.  
 (B) the stock's dividend payout ratio.  
 (C) the stock's appropriate risk premium.
86. Assume that a firm has an expected dividend payout ratio of 20%, a required rate of return of 9%, and an expected dividend growth of 5%. What is the firm's estimated price-to-earnings (P/E) ratio?
- (A) 5.00.  
 (B) 2.22.  
 (C) 20.00.



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87. Use the following data to analyze a stock's price earnings ratio (P/E ratio):
- The stock's beta is 1.2.
  - The dividend payout ratio is 60%.
  - The stock's expected growth rate is 7%.
  - The risk free rate is 6% and the expected rate of return on the market is 13%.
- Using the dividend discount model, the expected P/E ratio of the stock is closest to:
- (A) 10.0.  
(B) 5.4.  
(C) 8.1.
88. Given the following information, compute the price/cash flow ratio for EAV Technology, a U.S. GAAP reporting firm.
- Net income per share = \$6
  - Price per share = \$100
  - Depreciation per share = \$2
  - Interest expense per share = \$4
  - Marginal tax rate = 25%
- (A) 12.5X.  
(B) 8.3X.  
(C) 9.1X.
89. An argument against using the price to cash flow (P/CF) valuation approach is that:
- (A) price to cash flow ratios are not as volatile as price-to-earnings (P/E) multiples.  
(B) non-cash revenue and net changes in working capital are ignored when using earnings per share (EPS) plus non-cash charges as an estimate.  
(C) cash flows are not as easy to manipulate or distort as EPS and book value.
90. Which of the following statements concerning security valuation is least accurate?
- (A) A stock to be held for two years with a year-end dividend of \$2.20 per share, an estimated value of \$20.00 at the end of two years, and a required return of 15% is estimated to be worth \$18.70 currently.  
(B) A stock with an expected dividend payout ratio of 30%, a required return of 8%, an expected dividend growth rate of 4%, and expected earnings of \$4.15 per share is estimated to be worth \$31.13 currently.  
(C) A stock with a dividend last year of \$3.25 per share, an expected dividend growth rate of 3.5%, and a required return of 12.5% is estimated to be worth \$36.11.
91. If the payout ratio increases, the justified P/E multiple will:
- (A) always increase.  
(B) increase, if we assume that the growth rate remains constant.  
(C) decrease, if we assume that the growth rate remains constant.

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92. An analyst gathered the following data:
- An earnings retention rate of 40%.
  - An ROE of 12%.
  - The stock's beta is 1.2.
  - The nominal risk free rate is 6%.
  - The expected market return is 11 %.
- Assuming next year's earnings will be \$4 per share, the stock's current value is closest to:
- (A) \$26.67.  
 (B) \$33.32.  
 (C) \$45.45.
93. All else equal, if a firm's return on equity (ROE) increases, the stock's value as estimated by the constant growth dividend discount model (DDM) will most likely.
- (A) increase.  
 (B) not change.  
 (C) decrease.
94. An analyst gathered the following information about an industry. The industry beta is 0.9. The industry profit margin is 8%, the total asset turnover ratio is 1.5, and the leverage multiplier is 2. The dividend payout ratio of the industry is 50%. The risk-free rate is 7% and the expected market return is 15%. The industry P/E is closest to:
- (A) 12.00.  
 (B) 14.20.  
 (C) 22.73.
95. A company has 8 percent preferred stock outstanding with a par value of \$100. The required return on the preferred is 5 percent. What is the value of the preferred stock?
- (A) \$100.00  
 (B) \$152.81.  
 (C) \$160.00.
96. If the return on equity for a firm is 15% and the retention rate is 40%, the firm's sustainable growth rate is closest to:
- (A) 15%.  
 (B) 9%.  
 (C) 6%.
97. A preferred stock's dividend is \$5 and the firm's bonds currently yield 6.25%. The preferred shares are priced to yield 75 basis points below the bond yield. The price of the preferred is closest to:
- (A) \$5.00.  
 (B) \$90.91.  
 (C) \$80.00.

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98. Assume the Wansch Corporation is expected to pay a dividend of \$2.25 per share this year. Sales and profit for Wansch are forecasted to grow at a rate of 20% for two years after that, then grow at 5% per year forever. Dividend and sales growth are expected to be equal. If Wansch's shareholders require a 15% return, the per-share value of Wansch's common stock based on the dividend discount model is closest to:
- (A) \$28.50.  
 (B) \$26.00.  
 (C) \$22.75.
99. A firm has an expected dividend payout ratio of 50 percent, a required rate of return of 18 percent, and an expected dividend growth rate of 3 percent. The firm's price to earnings ratio (P/E) is:
- (A) 3.33.  
 (B) 2.78.  
 (C) 6.66.
100. The risk-free rate is 5%, and the expected return on the market index is 15%. A stock has a:
- Beta of 1.0.
  - Dividend payout ratio of 40%.
  - Return on equity (ROE) of 15%.
- If the stock is expected to pay a \$2.50 dividend, its intrinsic value using dividend discount model is closest to:
- (A) \$41.67.  
 (B) \$27.77.  
 (C) \$53.33.
101. A company's payout ratio is 0.45 and its expected return on equity (ROE) is 23%. What is the company's implied growth rate in dividends?
- (A) 12.65%.  
 (B) 10.35%.  
 (C) 4.16%.
102. Holding all else equal, if the beta of a stock increases, the stock's price will:
- (A) be unaffected.  
 (B) decrease.  
 (C) increase.
103. Baker Computer earned \$6.00 per share last year, has a retention ratio of 55%, and a return on equity (ROE) of 20%. Assuming their required rate of return is 15%, how much would an investor pay for Baker on the basis of the earnings multiplier model?
- (A) \$173.90.  
 (B) \$74.93.  
 (C) \$40.00.

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104. A firm is expected to have four years of growth with a retention ratio of 100%. Afterwards the firm's dividends are expected to grow 4% annually, and the dividend payout ratio will be set at 50%. If earnings per share (EPS) = \$2.4 in year 5 and the required return on equity is 10%, what is the stock's value today?
- (A) \$20.00.  
 (B) \$30.00.  
 (C) \$13.66.
105. A firm has a constant growth rate of 7% and just paid a dividend of \$6.25. If the required rate of return is 12%, what will the stock sell for two years from now based on the dividend discount model?
- (A) \$133.75.  
 (B) \$149.80.  
 (C) \$153.13.
106. What value would be placed on a stock that currently pays no dividend but is expected to start paying a \$1 dividend five years from now? Once the stock starts paying dividends, the dividend is expected to grow at a 5 percent annual rate. The appropriate discount rate is 12 percent.
- (A) \$14.29.  
 (B) \$9.08.  
 (C) \$8.11.
107. An analyst gathered the following data for the Parker Corp. for the year ended December 31, 2005:
- $EPS_{2005} = \$1.75$
  - $Dividends_{2005} = \$1.40$
  - $Beta_{parker} = 1.17$
  - Long-term bond rate = 6.75%
  - Rate of return S&P 500 = 12.00%
- The firm is expected to continue their dividend policy in future. If the long-term growth rate in earnings and dividends is expected to be 6%, the forward P/E ratio for Parker Corp. will be:
- (A) 12.31.  
 (B) 21.54.  
 (C) 11.61.
108. Other things equal, the effect of a stock split on shareholder wealth is to:
- (A) increase it.  
 (B) leave it unchanged.  
 (C) decrease it.

109. Given the following information, compute price/book value.

- Book value of assets = \$550,000
- Total sales = \$200,000
- Net income = \$20,000
- Dividend payout ratio = 30%
- Operating cash flow = \$40,000
- Price per share = \$100
- Shares outstanding = 1000
- Book value of liabilities = \$500,000

- (A) 2.0X.
- (B) 2.5X.
- (C) 5.5X.

110. Using an infinite period dividend discount model, find the value of a stock that last paid a dividend of \$1.50. Dividends are expected to grow at 6 percent forever, the expected return on the market is 12 percent and the stock's beta is 0.8. The risk-free rate of return is 5 percent.

- (A) \$26.50.
- (B) \$32.61.
- (C) \$34.57.

111. An analyst gathered the following information about a company:

- The stock is currently trading at \$31.00 per share.
- Estimated growth rate for the next three years is 25%.
- Beginning in the year 4, the growth rate is expected to decline and stabilize at 8%.
- The required return for this type of company is estimated at 15%.
- The dividend in year 1 is estimated at \$2.00.

The stock is undervalued by approximately:

- (A) \$0.00.
- (B) \$15.70.
- (C) \$6.40.

112. All else equal, the price-to-earnings (P/E) ratio of a stable firm will increase if the:

- (A) dividend payout is decreased.
- (B) long-term growth rate is decreased.
- (C) ROE is increased.

113. In its latest annual report, a company reported the following:

Net income	=	\$1,000,000
Total equity	=	\$5,000,000
Total assets	=	\$10,000,000

Dividend payout ratio = 40%

Based on the sustainable growth model, the most likely forecast of the company's future earnings growth rate is:

- (A) 8%.
- (B) 6%.
- (C) 12%.

114. Bybee is expected to have a temporary supernormal growth period and then level off to a "normal," sustainable growth rate forever. The supernormal growth is expected to be 25 percent for 2 years, 20 percent for one year and then level off to a normal growth rate of 8 percent forever. The market requires a 14 percent return on the company and the company last paid a \$2.00 dividend. What would the market be willing to pay for the stock today?

- (A) \$67.50.
- (B) \$47.09.
- (C) \$52.68.

115. Use the following information and the multi-period dividend discount model to find the value of Computech's common stock.

- Last year's dividend was \$1.62.
- The dividend is expected to grow at 12% for three years.
- The growth rate of dividends after three years is expected to stabilize at 4%.
- The required return for Computech's common stock is 15%.

Which of the following statements about Computech's stock is /east accurate?

- (A) At the end of two years, Computech's stock will sell for \$20.69.
- (B) Computech's stock is currently worth \$17.46.
- (C) The dividend at the end of year three is expected to be \$2.28.

116. If a firm's growth rate is 12% and its dividend payout ratio is 30%, its current return on equity (ROE) is closest to:

- (A) 40.00%.
- (B) 17.14%.
- (C) 36.00%.

117. The last dividend paid on a common stock was \$2.00, the growth rate is 5% and investors require a 10% return. Using the infinite period dividend discount model, calculate the value of the stock.

- (A) \$40.00.
- (B) \$13.33.
- (C) \$42.00.

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118. The current price of XYZ, Inc., is \$40 per share with 1,000 shares of equity outstanding. Sales are \$4,000 and the book value of the firm is \$10,000. What is the price/sales ratio of XYZ, Inc.?
- (A) 4.000.  
 (B) 0.010.  
 (C) 10.000.
119. Yong Kim, CFA, buys a preferred stock that has a 6% dividend yield (defined as the ratio of the preferred dividend to the market price of the preferred stock). One year later, Kim sells the stock when it is selling at a 5% dividend yield. The preferred stock pays a fixed annual dividend, which Kim received right before selling. What rate of return did Kim realize on his investment?
- (A) 14%.  
 (B) 26%.  
 (C) 20%.
120. A company's growth rate in dividends and earnings can be estimated as the:
- (A) product of the retention ratio and the return on equity.  
 (B) difference between the retention ratio and the return on equity.  
 (C) product of the return on equity and the dividend payout ratio.
121. An analyst gathered the following data for the Parker Corp. for the year ended December 31, 2005:
- $EPS_{2005} = \$1.75$
  - $Dividends_{2005} = \$1.40$
  - $Beta_{Parker} = 1.17$
  - Long-term bond rate = 6.75%
  - Rate of return S&P<sub>500</sub> = 12.00%
- The firm has changed its dividend policy and now plans to pay out 60% of its earnings as dividends in the future. If the long-term growth rate in earnings and dividends is expected to be 5%, the appropriate price to earnings (P/E) ratio for Parker will be:
- (A) 7.60.  
 (B) 9.14.  
 (C) 7.98.
122. Which of the following is least likely an advantage of using price/sales (P/S) multiple to value an equity security, as compared to using price/earnings (P/E) multiples?
- (A) P/S multiples are not as volatile as P/E multiples and hence may be more reliable in valuation analysis.  
 (B) P/S multiples provide a meaningful framework for evaluating distressed firms when negative earnings prevent the use of P/E multiples.  
 (C) P/S multiples are more reliable than P/E multiples because sales data cannot be distorted by management.



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123. An analyst has gathered the following data for Webco, Inc:

- Retention = 40%
- ROE = 25%
- $k = 14\%$

Using the infinite period, or constant growth, dividend discount model, calculate the price of Webco's stock assuming that next years earnings will be \$4.25.

- (A) \$125.00.
- (B) \$55.00.
- (C) \$63.75.

124. Assuming the risk-free rate is 5% and the expected return on the market is 12%, what is the value of a stock with a beta of 1.5 that paid a \$2 dividend last year if dividends are expected to grow at a 5% rate forever?

- (A) \$12.50.
- (B) \$17.50.
- (C) \$20.00.

125. A firm pays an annual dividend of \$1.15. The risk-free rate (RF) is 2.5%, and the total risk premium (RP) for the stock is 7%. What is the value of the stock, if the dividend is expected to remain constant?

- (A) \$25.00.
- (B) \$16.03.
- (C) \$12.10.

126. James Fry, CFA, is evaluating the potential investment merit of Cushing Corporation. Fry forecasts that Cushing's earnings next year will be \$4.70 and it will pay a \$1.65 dividend. Fry estimates Cushing's future growth rate will be 10%, with a required rate of return of 12%.

Based on the information provided, Cushing's leading price to earnings (P/E) ratio is closest to:

- (A) 15.0.
- (B) 15.9.
- (C) 17.6.

127. If the expected dividend payout ratio of a firm is expected to rise from 50 percent to 55 percent, the cost of equity is expected to increase from 10 percent to 11 percent, and the firm's growth rate remains at 5 percent, what will happen to the firm's price-to-equity (P/E) ratio? It will:

- (A) increase.
- (B) decline.
- (C) be unchanged.

128. REM Corp.'s return on equity (ROE) is 19.5% and its dividend payout rate is 45%. What is the company's implied dividend growth rate?
- (A) 10.73%.
  - (B) 19.5%.
  - (C) 878%.
128. Gwangwa Gold, a South African gold producer, has as its primary asset a mine which is shown on the balance sheet with a value of R100 million. An analyst estimates the market value of this mine to be 90% of book value. The company's balance sheet shows other assets of R20 million and liabilities of R40 million, and the analyst feels that the book value of these items reflects their market values. Using the asset-based valuation approach, what should the analyst estimate the value of the company to be?
- (A) R110 million.
  - (B) R70 million.
  - (C) R80 million.
129. If an analyst estimates the intrinsic value for a security that is different from its market value, the analyst should most likely take an investment position based on this difference if:
- (A) many analysts independently evaluate the security.
  - (B) the model used is not highly sensitive to its input values.
  - (C) the security lacks a liquid market and trades infrequently.
130. One advantage of using price-to-book value (PBV) multiples for stock valuation is that:
- (A) it is a stable and simple benchmark for comparison to the market price.
  - (B) book value of a firm can never be negative.
  - (C) most of the time it is close to the market value.
131. Assume that a stock paid a dividend of \$1.50 last year. Next year, an investor believes that the dividend will be 20% higher and that the stock will be selling for \$50 at year-end. Assume a beta of 2.0, a risk-free rate of 6%, and an expected market return of 15%. What is the value of the stock?
- (A) \$40.32.
  - (B) \$41.77.
  - (C) \$45.00.
132. Enterprise value is most accurately described as a firm's:
- (A) market value of assets minus market value of liabilities, plus cash and short-term investments.
  - (B) market value of stock plus cash and short-term investments, minus market value of debt.
  - (C) market value of stock plus market value of debt, minus cash and short-term investments.

133. A firm has an expected dividend payout ratio of 48 percent and an expected future growth rate of 8 percent. What should the firm's price to earnings ratio (P/E) be if the required rate of return on stocks of this type is 14 percent and what is the retention ratio of the firm?

	P/E ratio	Retention ratio
(A)	6.5	48%
(B)	8.0	52%
(C)	6.5	52%

134. An investor is considering acquiring a common stock that he would like to hold for one year. At the end of the year he expects to receive both \$1.50 in dividends and \$26 from the sale of the stock. What is the maximum price he should pay for the stock today to earn a 15 percent return?

- (A) \$23.91.
- (B) \$27.30.
- (C) \$24.11.

135. When a company's return on equity (ROE) is 12% and the dividend payout ratio is 60%, what is the implied sustainable growth rate of earnings and dividends?

- (A) 4.0%.
- (B) 4.8%.
- (C) 7.8%.

136. Which of the following is NOT an assumption of the constant growth dividend discount model (DDM)?

- (A) Dividend payout is constant.
- (B) ROE is constant.
- (C) The growth rate of the firm is higher than the overall growth rate of the economy.

137. Which of the following statements regarding price multiples is most accurate?

- (A) A disadvantage of the price/book value ratio is that it is not an appropriate measure for firms that primarily hold liquid assets.
- (B) A rationale for using the price/cash flow ratio is that there is only one clear definition of cash flow.
- (C) An advantage of the price/sales ratio is that it is meaningful even for distressed firms.

138. A company has 6% preferred stock outstanding with a par value of \$100. The required return on the preferred is 8%. What is the value of the preferred stock?

- (A) \$100.00.
- (B) \$75.00.
- (C) \$92.59.

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139. Because of dividend displacement of earnings, the net effect on firm value of increasing the dividend payout ratio is:

- (A) indeterminate.
- (B) to decrease firm value.
- (C) to increase firm value.

140. What is the value of a preferred stock that is expected to pay a \$5.00 annual dividend per year forever if similar risk securities are now yielding 8%?

- (A) \$40.00.
- (B) \$60.00.
- (C) \$62.50.

