Chapter 13

1. P/E ratios tend to be _____ when inflation is _____.

A. higher; higher

B. lower; lower

C. higher; lower

D. they are unrelated

2. New-economy companies generally have higher _____ than old-economy companies.

A. book value per share

B. P/E multiples

C. profits

D. asset values

3. The price-to-sales ratio is probably most useful for firms in which phase of the industry life cycle?

A. start-up phase

B. consolidation

C. maturity

D. relative decline

4. Earnings yields tend to _____ when Treasury yields fall.

A. fall

B. rise

C. remain unchanged

D. fluctuate wildly

5. If a stock is correctly priced, then you know that _____.

A. the dividend payout ratio is optimal

B. the stock's required return is equal to the growth rate in earnings and dividends

C. the sum of the stock's expected capital gain and dividend yield is equal to the stock's required rate of return

D. the present value of growth opportunities is equal to the value of assets in place

6. A stock has an intrinsic value of $15 and an actual stock price of $13.50. You know that this stock _____.

A. has a Tobin's q value < 1
B. will generate a positive alpha
C. has an expected return less than its required return
D. has a beta > 1

7. A firm that has an ROE of 12% is considering cutting its dividend payout. The stockholders of the firm desire a dividend yield of 4% and a capital gain yield of 9%. Given this information, which of the following statements is (are) correct?

I. All else equal, the firm's growth rate will accelerate after the payout change.
II. All else equal, the firm's stock price will go up after the payout change.
III. All else equal, the firm's P/E ratio will increase after the payout change.

A. I only
B. I and II only
C. II and III only
D. I, II, and III

8. An underpriced stock provides an expected return that is _____ the required return based on the capital asset pricing model (CAPM).

A. less than
B. equal to
C. greater than
D. greater than or equal to

9. The constant-growth dividend discount model (DDM) can be used only when the _____.

A. growth rate is less than or equal to the required return
B. growth rate is greater than or equal to the required return
C. growth rate is less than the required return
D. growth rate is greater than the required return

10. Firms with higher expected growth rates tend to have P/E ratios that are _____ the P/E ratios of firms with lower expected growth rates.

A. higher than
B. equal to
C. lower than
D. There is not necessarily any linkage between risk and P/E ratios.

11. The market capitalization rate on the stock of Aberdeen Wholesale Company is 10%. Its expected ROE is 12%, and its expected EPS is $5. If the firm's plowback ratio is 50%, its P/E ratio will be _____.

A. 8.33
B. 12.5
C. 19.23
D. 24.15

12. Eagle Brand Arrowheads has expected earnings of $1.25 per share and a market capitalization rate of 12%. Earnings are expected to grow at 5% per year indefinitely. The firm has a 40% plowback ratio. By how much does the firm's ROE exceed the market capitalization rate?

A. .5%
B. 1%
C. 1.5%
D. 2%

13. A firm is planning on paying its first dividend of $2 three years from today. After that, dividends are expected to grow at 6% per year indefinitely. The stock's required return is 14%. What is the intrinsic value of a share today?

A. $25
B. $16.87
C. $19.24
D. $20.99

14. Rose Hill Trading Company is expected to have EPS in the upcoming year of $6. The expected ROE is 18%. An appropriate required return on the stock is 14%. If the firm has a plowback ratio of 70%, its intrinsic value should be _____.

A. $20.93
B. $69.77
C. $128.57
D. $150

15. A firm has PVGO of 0 and a market capitalization rate of 12%. What is the firm's P/E ratio?

A. 12
B. 8.33
C. 10.25
D. 18.55

16. ART has come out with a new and improved product. As a result, the firm projects an ROE of 25%, and it will maintain a plowback ratio of .20. Its earnings this year will be $3 per share. Investors expect a 12% rate of return on the stock. At what price would you expect ART to sell?

A. $25
B. $34.29
C. $42.86
D. $45.67

17. ART has come out with a new and improved product. As a result, the firm projects an ROE of 25%, and it will maintain a plowback ratio of .20. Its earnings this year will be $3 per share. Investors expect a 12% rate of return on the stock. At what P/E ratio would you expect ART to sell?

A. 8.33
B. 11.43
C. 14.29
D. 15.25

18. The free cash flow to the firm is reported as $205 million. The interest expense to the firm is $22 million. If the tax rate is 35% and the net debt of the firm increased by $25 million, what is the approximate market value of the firm if the FCFE grows at 2% and the cost of equity is 11%?

A. $2,168 billion
B. $2,445 billion
C. $2,565 billion
D. $2,998 billion

19. Next year's earnings are estimated to be $5. The company plans to reinvest 20% of its earnings at 15%. If the cost of equity is 9%, what is the present value of growth opportunities?

A. $9.09
B. $10.10
C. $11.11
D. $12.21

20. Which of the following valuation measures is often used to compare firms that have no earnings?

A. price-to-book ratio
B. P/E ratio
C. price-to-cash-flow ratio
D. price-to-sales ratio

21. Cache Creek Manufacturing Company is expected to pay a dividend of $4.20 in the upcoming year. Dividends are expected to grow at the rate of 8% per year. The risk-free rate of return is 4%, and the expected return on the market portfolio is 14%. Investors use the CAPM to compute the market capitalization rate on the stock and use the constant-growth DDM to determine the intrinsic value of the stock. The stock is trading in the market today at $84. Using the constant-growth DDM and the CAPM, the beta of the stock is _____.

A. 1.4
B. .9
C. .8
D. .5

22. You want to earn a return of 11% on each of two stocks, A and B. Stock A is expected to pay a dividend of $3 in the upcoming year, while stock B is expected to pay a dividend of $2 in the upcoming year. The expected growth rate of dividends for both stocks is 4%. Using the constant-growth DDM, the intrinsic value of stock A _____.

A. will be higher than the intrinsic value of stock B
B. will be the same as the intrinsic value of stock B
C. will be less than the intrinsic value of stock B
D. The answer cannot be determined from the information given.

23. Assuming all other factors remain unchanged, _____ would increase a firm's price-earnings ratio.

A. an increase in the dividend payout ratio
B. a reduction in investor risk aversion
C. an expected increase in the level of inflation
D. an increase in the yield on Treasury bills

24. A firm cuts its dividend payout ratio. As a result, you know that the firm's _____.

A. return on assets will increase
B. earnings retention ratio will increase
C. earnings growth rate will fall
D. stock price will fall

25. If a stock is correctly priced, then you know that _____.

A. the dividend payout ratio is optimal
B. the stock's required return is equal to the growth rate in earnings and dividends
C. the sum of the stock's expected capital gain and dividend yield is equal to the stock's required rate of return
D. the present value of growth opportunities is equal to the value of assets in place

1	2	3	4	5
C	B	A	A	C
6	7	8	9	10
B	A	C	C	A
11	12	13	14	15
B	A	C	C	B
16	17	18	19	20
B	B	B	C	D
21	22	23	24	25
B	A	B	B	C

11.

Dividend payout ratio = 1 – .5 = .5

Expected dividend = .5 × $5 = $2.50

Growth rate = .5 × 12% = 6%

Value = $2.50/(.10 – .06) = $62.50

P/E = $62.50/$5 = 12.5

12.

ROE = g/b = .05/.4 = 12.5%

k is given as 12%, so ROE – k = .5%

13.

Intrinsic value at time 2 = $2/(.14 – .06) = $25

Intrinsic value today = $25/$(1.14)^2$ = $19.24

14.

V_0 = [$6.00(1 – .70)]/[.14 – .18(.70)] = $128.57

16.

P_0 = [$3.00(1 – .2)]/[.12 – .25(.2)] = $34.29

18.

FCFE = $205 – $22(1 – .35) + $25 = $215.70

Value = ($215.7 × 1.02)/(.11 – .02) = $2,445

19.

g = .20 × .15 = .03

Value with growth = ($5 × .80)/(.09 – .03) = 66.67

Value without growth = $5/.09 = $55.56

PVGO = $66.67 – 55.56 = $11.11

21.

k = $4.20/$84 + .08 = .13

.13 = .04 + β(.14 – .04)

β = .09/.10 = .9