

Ch9

Student: _____

1. The mixture of liabilities and stockholders' equity a business uses is called its capital structure.
True False
2. Interest expense incurred when borrowing money, as well as dividends paid to stockholders, are tax-deductible.
True False
3. As a company's level of debt increases, bankruptcy risk increases.
True False
4. Companies that are believed to have high bankruptcy risk generally receive higher credit ratings and pay a lower interest rate for borrowing.
True False
5. Bonds are the most common form of corporate debt.
True False
6. A private placement is when a company chooses to sell the debt securities directly to a single investor.
True False
7. Secured bonds are backed by the federal government.
True False
8. Unsecured bonds are not backed by a specific asset.
True False
9. Term bonds require payments in installments over a series of years.
True False
10. Serial bonds require payment of the full principal amount of the bond at a single maturity date.
True False
11. A callable bond allows the borrower to repay the bonds before their scheduled maturity date at a specified call price.
True False

12. Convertible bonds allow the investor to convert each bond into a specified number of shares of common stock.
- True False
13. We can calculate the issue price of a bond as the face amount plus the total periodic interest payments.
- True False
14. The market interest rate represents the true interest rate used by investors to value a company's bond issue.
- True False
15. The stated interest rate is the rate quoted in the bond contract used to calculate the cash payments for interest.
- True False
16. The market interest rate does not change over time.
- True False
17. The stated interest rate does not change over time.
- True False
18. As a company's default risk increases, investors demand a higher market interest rate on their bond investments.
- True False
19. The lower the market interest rate, the lower the bond issue price will be.
- True False
20. Bonds issued below face amount are said to be issued at a discount.
- True False
21. A premium occurs when the issue price of a bond is above its face amount.
- True False
22. The amount reported on the balance sheet for bonds payable is equal to the carrying value at the balance sheet date.
- True False
23. When bonds are issued at a discount (below face amount), the carrying value and the corresponding interest expense increase over time.
- True False

24. When bonds are issued at a premium (above face amount), the carrying value and the corresponding interest expense increase over time.
- True False
25. Interest expense is calculated as the carrying value times the market rate.
- True False
26. The cash payment each period is calculated as the carrying value times the market rate.
- True False
27. An amortization schedule provides a summary of the cash interest payments, interest expense, and changes in carrying value for each period.
- True False
28. For bonds issued at a premium, the difference between interest expense and the cash paid increases the carrying value of the bonds.
- True False
29. At the maturity date, the carrying value will equal the face amount of the bond.
- True False
30. The market value of bonds moves in the opposite direction of interest rates.
- True False
31. When an issuer retires debt of any type before its scheduled maturity date, the transaction is an early extinguishment of debt.
- True False
32. Losses/gains on the early extinguishment of debt are reported as part of operating income in the income statement.
- True False
33. Losses have the effect of reducing net income, while gains increase net income.
- True False
34. A gain or loss is recorded on bonds retired at maturity.
- True False
35. Monthly installment payments on a note payable include both an amount that represents interest and an amount that represents a reduction of the outstanding loan balance.
- True False

36. A lease is a contractual arrangement by which the lessor provides the lessee the right to use an asset for a specified period of time.
- True False
37. Operating leases are contractual agreements where the lessor owns the asset and the lessee simply uses the asset temporarily.
- True False
38. Operating leases occur when the lessee essentially buys an asset and borrows the money through a lease to pay for the asset.
- True False
39. The debt to equity ratio measures a company's risk and is calculated as total liabilities divided by stockholders' equity.
- True False
40. Leverage enables a company to earn a higher return using debt than without debt.
- True False
41. Return on assets is calculated as net income divided by the ending balance for total assets.
- True False
42. Return on equity is calculated as net income divided by average stockholders' equity.
- True False
43. The times interest earned ratio compares interest expense with income available to pay interest charges.
- True False
44. Which of the following is *not* a primary source of corporate debt financing?
- A. Bonds Payable.
 - B. Common Stock.
 - C. Leases.
 - D. Notes Payable.
45. The mixture of liabilities and stockholders' equity a business uses is called its:
- A. Bond contract.
 - B. Indenture agreement.
 - C. Capital structure.
 - D. Accounting equation.

46. Which of the following is *not* a true statement?

- A. Companies that are believed to have high bankruptcy risk generally receive low credit ratings and must pay a higher interest rate for borrowing.
- B. As a company's level of debt increases, the risk of bankruptcy increases.
- C. Interest expense incurred when borrowing money, as well as dividends paid to stockholders, are both tax-deductible.
- D. The mixture of liabilities and stockholders' equity a business uses is called its capital structure.

47. Samson Enterprises issued a ten-year, \$20 million bond with a 10% interest rate for \$19,500,000. The entry to record the bond issuance would have what effect on the financial statements?

- a. Increase assets.
- b. Increase liabilities.
- c. Increase stockholders' equity.
- d. a. and b.

- A. Option a
- B. Option b
- C. Option c
- D. Option d

48. Megginson, Inc. issued a five-year corporate bond of \$300,000 with a 5% interest rate for \$330,000. What effect would the bond issuance have on Megginson, Inc.'s accounting equation?

- a. Increase assets and liabilities.
- b. Increase and decrease assets.
- c. Increase assets and stockholders' equity.
- d. Increase and decrease liabilities.

- A. Option a
- B. Option b
- C. Option c
- D. Option d

49. The advantages of obtaining long-term funds by issuing bonds, rather than issuing additional common stock, include which of the following?

- a. Interest payments are tax deductible to the company, while dividends are not.
- b. The risk of going bankrupt decreases.
- c. Expansion is achieved without surrendering ownership control.
- d. a. and c.

- A. Option a
- B. Option b
- C. Option c
- D. Option d

50. The advantages of obtaining long-term funds by issuing bonds, rather than issuing additional common stock, include which of the following?
- Funds are obtained without surrendering ownership control.
 - Interest expense is tax-deductible.
 - The company's default risk decreases.
 - a. and b.
- A. Option a
B. Option b
C. Option c
D. Option d
51. Which of the following definitions describes a term bond?
- Matures on a single date.
 - Secured only by the "full faith and credit" of the issuing corporation.
 - Matures in installments.
 - Supported by specific assets pledged as collateral by the issuer.
52. Which of the following definitions describes a serial bond?
- Matures on a single date.
 - Secured only by the "full faith and credit" of the issuing corporation.
 - Matures in installments.
 - Supported by specific assets pledged as collateral by the issuer.
53. Which of the following definitions describes a secured bond?
- Matures on a single date.
 - Secured only by the "full faith and credit" of the issuing corporation.
 - Matures in installments.
 - Supported by specific assets pledged as collateral by the issuer.
54. Term bonds are:
- bonds issued below the face amount.
 - bonds that mature in installments.
 - bonds that mature all at once.
 - bonds issued below the face amount.
55. Serial bonds are:
- bonds backed by collateral.
 - bonds that mature in installments.
 - bonds with greater risk.
 - bonds issued below the face amount.
56. Bonds can be secured or unsecured. Likewise, bonds can be term or serial bonds. Which is more common?
- Secured and term.
 - Secured and serial.
 - Unsecured and term.
 - Unsecured and serial.

57. A home loan with fixed monthly payments and the house as collateral most closely represents which of the following bond characteristics?
- A. Secured and term.
 - B. Secured and serial.
 - C. Unsecured and term.
 - D. Unsecured and serial.
58. Which of the following is *not* true regarding callable bonds?
- A. This feature allows the borrower to repay the bonds before their scheduled maturity date.
 - B. This feature helps protect the borrower against future decreases in interest rates.
 - C. Callable bonds benefit the bond investor.
 - D. A bond can be both callable and convertible.
59. Convertible bonds:
- A. provide potential benefits only to the issuer.
 - B. provide potential benefits only to the investor.
 - C. provide potential benefits to both the issuer and the investor.
 - D. provide no potential benefits.
60. The price of a bond is equal to:
- A. the future value of the face amount only.
 - B. the present value of the interest only.
 - C. the present value of the face amount plus the present value of the stated interest payments.
 - D. the future value of the face amount plus the future value of the stated interest payments.
61. A bond issue with a face amount of \$500,000 bears interest at the rate of 10%. The current market rate of interest is also 10%. These bonds will sell at a price that is:
- A. Equal to \$500,000.
 - B. More than \$500,000.
 - C. Less than \$500,000.
 - D. The answer cannot be determined from the information provided.
62. A bond issue with a face amount of \$500,000 bears interest at the rate of 7%. The current market rate of interest is 8%. These bonds will sell at a price that is:
- A. Equal to \$500,000.
 - B. More than \$500,000.
 - C. Less than \$500,000.
 - D. The answer cannot be determined from the information provided.
63. A bond issue with a face amount of \$500,000 bears interest at the rate of 7%. The current market rate of interest is 6%. These bonds will sell at a price that is:
- A. Equal to \$500,000.
 - B. More than \$500,000.
 - C. Less than \$500,000.
 - D. The answer cannot be determined from the information provided.

64. Ordinarily, the proceeds from the sale of a bond issue will be equal to:
- A. The face amount of the bond.
 - B. The total of the face amount plus all interest payments.
 - C. The present value of the face amount plus the present value of the stream of interest payments.
 - D. The face amount of the bond plus the present value of the stream of interest payments.
65. Bonds usually sell at their:
- A. Maturity value.
 - B. Present value.
 - C. Face value.
 - D. Call Price.
66. A \$500,000 bond issue sold for \$510,000. Therefore, the bonds:
- A. Sold at a premium because the stated interest rate was higher than the market rate.
 - B. Sold for the \$500,000 face amount plus \$10,000 of accrued interest.
 - C. Sold at a discount because the stated interest rate was higher than the market rate.
 - D. Sold at a premium because the market interest rate was higher than the stated rate.
67. A \$500,000 bond issue sold for \$490,000. Therefore, the bonds:
- A. Sold at a discount because the stated interest rate was higher than the market rate.
 - B. Sold for the \$500,000 face amount less \$10,000 of accrued interest.
 - C. Sold at a premium because the stated interest rate was higher than the market rate.
 - D. Sold at a discount because the market interest rate was higher than the stated rate.
68. For a bond issue that sells for more than the bond face amount, the stated interest rate is:
- A. The actual yield rate.
 - B. The prime rate.
 - C. More than the market rate.
 - D. Less than the market rate.
69. For a bond issue that sells for less than the bond face amount, the stated interest rate is:
- A. The actual yield rate.
 - B. The prime rate.
 - C. More than the market rate.
 - D. Less than the market rate.
70. Bond X and Bond Y are both issued by the same company. Each of the bonds has a face value of \$100,000 and each matures in 10 years. Bond X pays 8% interest while Bond Y pays 7% interest. The current market rate of interest is 7%. Which of the following is correct?
- A. Both bonds will sell for the same amount.
 - B. Bond X will sell for more than Bond Y.
 - C. Bond Y will sell for more than Bond X.
 - D. Both bonds will sell at a premium.

71. Bond X and Bond Y are both issued by the same company. Each of the bonds has a face value of \$100,000 and each matures in 10 years. Bond X pays 8% interest while Bond Y pays 9% interest. The current market rate of interest is 8%. Which of the following is correct?
- A. Both bonds will sell for the same amount.
 - B. Bond X will sell for more than Bond Y.
 - C. Bond Y will sell for more than Bond X.
 - D. Both bonds will sell at a discount.

72. Raiders Company issues a bond with a stated interest rate of 10%, face value of \$50,000, and due in 5 years. Interest payments are made semi-annually. The market rate for this type of bond is 12%. What is the issue price of the bond?
- a. \$83,920
 - b. \$46,320
 - c. \$53,605
 - d. \$50,000

- A. Option a
- B. Option b
- C. Option c
- D. Option d

73. Raiders Company issues a bond with a stated interest rate of 10%, face value of \$50,000, and due in 5 years. Interest payments are made semi-annually. The market rate for this type of bond is 8%. What is the issue price of the bond?
- a. \$83,920
 - b. \$46,320
 - c. \$54,055
 - d. \$50,000

- A. Option a
- B. Option b
- C. Option c
- D. Option d

74. Given the information below, which bond(s) will be issued at a discount?

	Bond 1	Bond 2	Bond 3	Bond 4
Stated Rate of Return	5%	7%	12%	10%
Market Rate of Return	7%	8%	12%	9%

- a. Bond 1
- b. Bond 2
- c. Bond 4
- d. Bonds 1 and 2

- A. Option a
- B. Option b
- C. Option c
- D. Option d

75. Given the information below, which bond(s) will be issued at a premium?

	Bond 1	Bond 2	Bond 3	Bond 4
Stated Rate of Return	5%	10%	7%	10%
Market Rate of Return	7%	8%	7%	9%

- a. Bond 1
- b. Bond 2
- c. Bond 3
- d. Bonds 2 and 4

- A. Option a
- B. Option b
- C. Option c
- D. Option d

76. Given the information below, which bond(s) will be issued at a discount?

	Bond 1	Bond 2	Bond 3	Bond 4
Stated Rate of Return	10%	8%	12%	12%
Market Rate of Return	12%	8%	15%	10%

- a. Bond 1
- b. Bond 3
- c. Bonds 2 and 4
- d. Bonds 1 and 3

- A. Option a
- B. Option b
- C. Option c
- D. Option d

77. Given the information below, which bond(s) will be issued at a premium?

	Bond 1	Bond 2	Bond 3	Bond 4
Stated Rate of Return	7%	12%	10%	8%
Market Rate of Return	8%	10%	10%	9%

- a. Bond 1
- b. Bond 2
- c. Bond 3
- d. Bonds 2 and 4

- A. Option a
- B. Option b
- C. Option c
- D. Option d

78. The rate quoted in the bond contract used to calculate the cash payments for interest is called the:

- A. Face rate.
- B. Yield rate.
- C. Market rate.
- D. Stated rate.

79. The rate of interest expense incurred on a bond payable for bonds of similar risk is called the:
- A. Face rate.
 - B. Yield rate.
 - C. Market rate.
 - D. Stated rate.
80. Which of the following is true for bonds issued at a discount?
- A. The stated interest rate is greater than the market interest rate.
 - B. The market interest rate is greater than the stated interest rate.
 - C. The stated interest rate and the market interest rate are equal.
 - D. The stated interest rate and the market interest rate are unrelated.
81. Which of the following is true for bonds issued at a premium?
- A. The stated interest rate is less than the market interest rate.
 - B. The market interest rate is less than the stated interest rate.
 - C. The stated interest rate and the market interest rate are equal.
 - D. The stated interest rate and the market interest rate are unrelated.
82. The cash interest payment each period is calculated as the:
- A. Face amount times the stated interest rate.
 - B. Face amount times the market interest rate.
 - C. Carrying value times the market interest rate.
 - D. Carrying value times the stated interest rate.
83. Interest expense on bonds payable is calculated as the:
- A. Face amount times the stated interest rate.
 - B. Face amount times the market interest rate.
 - C. Carrying value times the market interest rate.
 - D. Carrying value times the stated interest rate.
84. When bonds are issued at a discount, what happens to the carrying value and interest expense over the life of the bonds?
- A. Carrying value and interest expense increase.
 - B. Carrying value and interest expense decrease.
 - C. Carrying value decreases and interest expense increases.
 - D. Carrying value increases and interest expense decreases.
85. When bonds are issued at a premium, what happens to the carrying value and interest expense over the life of the bonds?
- A. Carrying value and interest expense increase.
 - B. Carrying value and interest expense decrease.
 - C. Carrying value decreases and interest expense increases.
 - D. Carrying value increases and interest expense decreases.

86. Bonds payable should be reported as a long-term liability in the balance sheet at:

- A. Face Value.
- B. Current bond market price.
- C. Carrying value.
- D. Face value less accrued interest since the last interest payment date.

87. A bond issued at a discount indicates that at the date of issue:

- a. Its stated rate was lower than the prevailing market rate of interest on similar bonds.
- b. Its stated rate was higher than the prevailing market rate of interest on similar bonds.
- c. The bonds were issued at a price greater than their face value.
- d. The bonds must be non-interest bearing.

- A. Option a
- B. Option b
- C. Option c

88. A bond issued at a premium indicates that at the date of issue:

- a. Its stated rate was lower than the prevailing market rate of interest on similar bonds.
- b. Its stated rate was higher than the prevailing market rate of interest on similar bonds.
- c. The bonds were issued at a price greater than their face value.
- d. The bonds must be non-interest bearing.

- A. Option a
- B. Option b
- C. Option c
- D. Option d

89. How would the carrying value of bonds payable change over time for bonds issued at a

	<u>Discount</u>	<u>Premium</u>
a.	No effect	No effect
b.	No effect	Increase
c.	Increase	Decrease
d.	Decrease	Increase

- A. Option a
- B. Option b
- C. Option c
- D. Option d

90. For the issuer of 20-year bonds, the carrying value using the effective interest method would decrease each year if the bonds were sold at a:

	<u>Discount</u>	<u>Premium</u>
a.	No	No
b.	No	Yes
c.	Yes	Yes
d.	Yes	No

- A. Option a
- B. Option b
- C. Option c
- D. Option d

91. When bonds are issued at a discount and the effective interest method is used for amortization, at each subsequent interest payment date, the cash paid is:

- A. Less than the interest expense.
- B. Equal to the interest expense.
- C. Greater than the interest expense.
- D. More than if the bonds had been sold at a premium.

92. When bonds are issued at a premium and the effective interest method is used for amortization, at each subsequent interest payment date, the cash paid is:

- A. Less than the interest expense.
- B. Equal to the interest expense.
- C. Greater than the interest expense.
- D. More than if the bonds had been sold at a discount.

93. When bonds are issued at a discount and the effective interest method is used for amortization, at each interest payment date, the interest expense:

- A. Increases.
- B. Decreases.
- C. Remains the same.
- D. Is equal to the change in book value.

94. When bonds are issued at a premium and the effective interest method is used for amortization, at each interest payment date, the interest expense:

- A. Increases.
- B. Decreases.
- C. Remains the same.
- D. Is equal to the change in book value.

95. An amortization schedule for a bond issued at a discount:

- A. Has a carrying value that decreases over time.
- B. Is contained in the balance sheet.
- C. Is a schedule that reflects the changes in bonds payable over its term to maturity.
- D. All of the other answers are correct.

96. An amortization schedule for a bond issued at a premium:

- A. Has a carrying value that increases over time.
- B. Is contained in the balance sheet.
- C. Is a schedule that reflects the changes in bonds payable over its term to maturity.
- D. All of the other answers are correct.

Discount-Mart issues \$10 million in bonds on January 1, 2012. The bonds have a ten-year term and pay interest semiannually on June 30 and December 31 each year. Below is a partial bond amortization schedule for the bonds:

Date	Cash Paid	Interest Expense	Decrease in Carrying Value	Carrying Value
1/1/12				\$8,640,967
6/30/12	\$300,000	\$345,639	\$45,639	8,686,606
12/31/12	300,000	347,464	47,464	8,734,070
6/30/13	300,000	349,363	49,363	8,783,433
12/31/13	300,000	351,337	51,337	8,834,770

97. What is the stated annual rate of interest on the bonds? (Hint: Be sure to provide the annual rate rather than the six month rate.)

- A. 3%.
- B. 4%.
- C. 6%.
- D. 8%.

98. What is the market annual rate of interest on the bonds? (Hint: Be sure to provide the annual rate rather than the six month rate.)

- A. 3%.
- B. 4%.
- C. 6%.
- D. 8%.

99. What is the interest expense on the bonds in 2012?

- A. \$693,103.
- B. \$600,000.
- C. \$345,639.
- D. \$347,464.

100. What is the carrying value of the bonds as of December 31, 2013?

- A. \$8,834,770.
- B. \$8,686,606.
- C. \$8,734,070.
- D. \$8,783,433.

Tony Hawk's Adventure (THA) issued callable bonds on January 1, 2012. THA's accountant has projected the following amortization schedule from issuance until maturity:

Date	Cash Paid	Interest Expense	Increase in Carrying Value	Carrying Value
1/1/12				\$194,758
6/30/12	\$7,000	\$7,790	\$790	195,548
12/31/12	7,000	7,822	822	196,370
6/30/13	7,000	7,855	855	197,225
12/31/13	7,000	7,889	889	198,114
6/30/14	7,000	7,925	925	199,039
12/31/14	7,000	7,961	961	200,000

101. THA issued the bonds:

- A. At par.
- B. At a premium.
- C. At a discount.
- D. Cannot be determined from the given information.

102. THA issued the bonds for:

- A. \$200,000.
- B. \$194,758.
- C. \$242,000.
- D. Cannot be determined from the given information.

103. The THA bonds have a life of:

- A. 2 years.
- B. 3 years.
- C. 6 years.
- D. Cannot be determined from the given information.

104. What is the annual stated interest rate on the bonds? (Hint: Be sure to provide the annual rate rather than the six month rate.)

- A. 3%.
- B. 3.5%.
- C. 6%.
- D. 7%.

105. What is the annual market interest rate on the bonds? (Hint: Be sure to provide the annual rate rather than the six month rate.)

- A. 4%.
- B. 3.5%.
- C. 7%.
- D. 8%.

106. THA buys back the bonds for \$196,000 immediately after the interest payment on 12/31/12 and retires them. What gain or loss, if any, would THA record on this date?

- A. No gain or loss.
- B. \$370 gain.
- C. \$4,000 gain.
- D. \$1,242 loss.

X2 issued callable bonds on January 1, 2012. The bonds pay interest annually on December 31 each year. X2's accountant has projected the following amortization schedule from issuance until maturity:

Date	Cash Paid	Interest Expense	Decrease in Carrying Value	Carrying Value
1/1/10				\$104,212
12/31/11	\$7,000	\$6,253	\$747	103,465
12/31/12	7,000	6,208	792	102,673
12/31/13	7,000	6,160	840	101,833
12/31/14	7,000	6,110	890	100,943
12/31/15	7,000	6,057	943	100,000

107. X2 issued the bonds:

- A. At par.
- B. At a premium.
- C. At a discount.
- D. Cannot be determined from the given information.

108. X2 issued the bonds for:

- A. \$100,000.
- B. \$107,000.
- C. \$104,212.
- D. Cannot be determined from the given information.

109. The X2 bonds have a life of:

- A. 3 years.
- B. 4 years.
- C. 5 years.
- D. Cannot be determined from the given information.

110. What is the annual stated interest rate on the bonds?

- A. 3%.
- B. 3.5%.
- C. 6%.
- D. 7%.

111. What is the annual market interest rate on the bonds?

- A. 3%.
- B. 3.5%.
- C. 6%.
- D. 7%.

112. X2 buys back the bonds for \$103,000 immediately after the interest payment on 12/31/12 and retires them. What gain or loss, if any, would X2 record on this date?
- A. No gain or loss.
 - B. \$3,000 gain.
 - C. \$1,202 loss.
 - D. \$327 loss.
113. When bonds are retired before their maturity date:
- A. GAAP has been violated.
 - B. The issuing company will always report a non-operating gain.
 - C. The issuing company will always report a non-operating loss.
 - D. The issuing company will report a non-operating gain or loss.
114. The Viper retires a \$40 million bond issue when the carrying value of the bonds is \$42 million, but the market value of the bonds is \$36 million. The entry to record the retirement will include:
- A. A credit of \$6 million to a gain account.
 - B. A debit of \$6 million to a loss account.
 - C. No gain or loss on retirement.
 - D. A debit to cash for \$42 million.
115. The Titan retires a \$20 million bond issue when the carrying value of the bonds is \$18 million, but the market value of the bonds is \$23 million. The entry to record the retirement will include:
- A. A debit of \$5 million to a loss account.
 - B. A credit of \$5 million to a gain account.
 - C. No gain or loss on retirement.
 - D. A debit to cash for \$18 million.
116. Which of the following statements is correct?
- a. Bonds are always issued at their face value.
 - b. Bonds issued at more than their face value are said to be issued at a discount.
 - c. Bondholders must hold their bonds until maturity to receive cash for their investment.
 - d. None of the other answers are correct
- A. Option a
 - B. Option b
 - C. Option c
 - D. Option d
117. In each succeeding payment on an installment note:
- A. The amount of interest expense increases.
 - B. The amount of interest expense decreases.
 - C. The amount of interest expense is unchanged.
 - D. The amounts paid for both interest and principal increase proportionately.

118. The entry to record a monthly payment on an installment note such as a car loan:
- A. Increases expense, decreases liabilities, and decreases assets.
 - B. Increases expense, increases liabilities, and increases assets.
 - C. Increases expense, decreases liabilities, and increases assets.
 - D. Increases expense, increases liabilities, and decreases assets.
119. How does the amortization schedule for an installment note such as a car loan differ from an amortization schedule for bonds?
- A. The final carrying value is zero in an amortization schedule for an installment note.
 - B. The final carrying value is zero in an amortization schedule for bonds.
 - C. The final carrying value is zero in both amortization schedules.
 - D. The final carrying value is not zero in either amortization schedule.
120. Which of the following leases is just like a rental?
- A. An operating lease.
 - B. A capital lease.
 - C. Both an operating and a capital lease.
 - D. Neither an operating lease nor a capital lease.
121. Which of the following leases is essentially the purchase of an asset with debt financing?
- A. an operating lease.
 - B. a capital lease.
 - C. both an operating and a capital lease.
 - D. neither an operating lease nor a capital lease.
122. Which of the following is *not* a reason why some companies lease rather than buy?
- A. Leasing may allow you to borrow with little or no down payment.
 - B. Leasing can improve the balance sheet by reducing long-term debt.
 - C. Leasing can lower income taxes.
 - D. Leasing transfers the title to the lessee at the beginning of the lease.
123. Financial leverage is best measured by which of the following ratios?
- A. The debt to equity ratio.
 - B. The return on equity ratio.
 - C. The times interest earned ratio.
 - D. The return on assets ratio.
124. Which of the following is true regarding a company assuming more debt?
- A. Assuming more debt is always bad for the company.
 - B. Assuming more debt is always good for the company.
 - C. Assuming more debt can be good for the company as long as they earn a return in excess of the rate charged on the borrowed funds.
 - D. Assuming more debt reduces leverage.

125. Which of the following is *not* a true statement?

- A. The debt to equity ratio measures a company's risk and is calculated as total liabilities divided by stockholders' equity.
- B. Leverage enables a company to earn a higher return using debt than without debt.
- C. Return on assets is calculated as net income divided by the ending balance for total assets.
- D. The times interest earned ratio compares interest expense with income available to pay interest charges.

126. The times interest earned ratio is calculated as

- A. Interest expense/Net income.
- B. Net income/Interest expense.
- C. (Net income + interest expense + tax expense)/Interest expense.
- D. Interest expense/(Net income + interest expense + tax expense).

127. Selected financial data for Home Depot is provided below:

(\$ in millions)	<u>Home Depot</u>
Sales	\$66,176
Interest expense	676
Tax expense	1,362
Net income	\$2,620

What is the times interest earned ratio for Home Depot?

- A. 6.9 times.
- B. 3.9 times.
- C. 0.3 times.
- D. 97.9 times.

128. Selected financial data for Lowes is provided below:

(\$ in millions)	<u>Lowes</u>
Sales	\$47,220
Interest expense	287
Tax expense	1,042
Net income	\$1,783

What is the times interest earned ratio for Lowes?

- A. 6.2 times.
- B. 10.8 times.
- C. 0.2 times.
- D. 164.5 times.

129. Frontier City is trying to decide between the following two alternatives to finance its new \$10 million roller coaster:

- a. Issue \$10 million of 6% bonds at face amount.
- b. Issue one million shares of common stock for \$10 per share.

	<u>Issue Bonds</u>	<u>Issue Stock</u>
Operating income	\$5,000,000	\$5,000,000
Interest expense (bonds only)		
Income before tax		
Income tax expense (30%)		
Net income	<u>\$</u>	<u>\$</u>
# of shares	3,000,000	4,000,000
Earnings per share (Net income / # of shares)	<u>\$</u>	<u>\$</u>

Assuming bonds or shares of stock are issued at the beginning of the year, complete the income statement listed above for each alternative. Which alternative results in the highest earnings per share?

130. Valentino's Pizza issues \$40 million of 3% convertible bonds that mature in ten years. Each \$1,000 bond is convertible into twenty-five shares of common stock. The current market price of Valentino's stock is \$35 per share.

1. Explain why Valentino's might choose to issue convertible bonds.
2. Explain why investors might choose Valentino's convertible bonds.

131. Stealth Fitness Center issues 7%, 10-year bonds with a face amount of \$200,000. The market interest rate for bonds of similar risk and maturity is 8%. Interest is paid semiannually. At what price will the bonds be issued?

132. Stealth Fitness Center issues 7%, 15-year bonds with a face amount of \$200,000. The market interest rate for bonds of similar risk and maturity is 6%. Interest is paid semiannually. At what price will the bonds be issued?
133. On January 1, 2012, Water Wonderland issues \$20 million of 8% bonds, due in ten years, with interest payable semiannually on June 30 and December 31 each year.
1. If the market rate is 7%, will the bonds issue at face amount, a discount, or a premium? Calculate the issue price.
 2. If the market rate is 8%, will the bonds issue at face amount, a discount, or a premium? Calculate the issue price.
 3. If the market rate is 9%, will the bonds issue at face amount, a discount, or a premium? Calculate the issue price.
134. Pizza Pier issues 7%, 10-year bonds with a face amount of \$80,000 on January 1, 2012. The market interest rate for bonds of similar risk and maturity is also 7%. Interest is paid semiannually on June 30 and December 31.
1. Record the bond issue.
 2. Record the first interest payment on June 30, 2012.

135. Pizza Pier issues 7%, 10-year bonds with a face amount of \$80,000 for \$74,564 on January 1, 2012. The market interest rate for bonds of similar risk and maturity is 8%. Interest is paid semiannually on June 30 and December 31.

1. Record the bond issue.
2. Record the first interest payment on June 30, 2012.

136. Pizza Pier issues 7%, 10-year bonds with a face amount of \$80,000 for \$85,951 on January 1, 2012. The market interest rate for bonds of similar risk and maturity is 6%. Interest is paid semiannually on June 30 and December 31.

1. Record the bond issue.
2. Record the first interest payment on June 30, 2012.

137. Presented below is a partial amortization schedule for Discount Foods:

(1) Period	(2) Cash Paid	(3) Interest Expense	(4) Increase in Carrying Value	(5) Carrying Value
Issue date				\$74,564
1	\$2,800	\$2,983	\$183	74,747
2	2,800	2,990	190	74,937

1. Record the bond issue.
2. Record the first interest payment.

138. Presented below is a partial amortization schedule for Premium Foods:

(1) Period	(2) Cash Paid	(3) Interest Expense	(4) Decrease in Carrying Value	(5) Carrying Value
Issue date				\$85,951
1	\$2,800	\$2,579	\$221	85,730
2	2,800	2,572	228	85,958

1. Record the bond issue.
2. Record the first interest payment.

139. On January 1, 2012, Ripstick Park issues \$800,000 of 8% bonds, due in ten years, with interest payable semiannually on June 30 and December 31 each year. Assuming the market interest rate on the issue date is 8%, the bonds will issue at \$800,000. Record the bond issue on January 1, 2012, and the first two semiannual interest payments on June 30, 2012, and December 31, 2012.

140. On January 1, 2012, Ripstick Park issues \$800,000 of 8% bonds, due in ten years, with interest payable semiannually on June 30 and December 31 each year. Assuming the market interest rate on the issue date is 9%, the bonds will issue at \$747,968.

1. Complete the first three rows of an amortization table.
2. Record the bond issue on January 1, 2012, and the first two semi-annual interest payments on June 30, 2012, and December 31, 2012.

(1) Date	(2) Cash Paid Face Amount x Stated Rate	(3) Interest Expense Carrying Value x Market Rate	(4) Increase in Carrying Value (3) – (2)	(5) Carrying Value Prior Carrying Value + (4)
1/1/12				\$ 747,968
6/30/12	\$ 32,000	\$ 33,659	\$ 1,659	749,627
12/31/12	32,000	33,733	1,733	751,360

Answer:

January 1, 2012

Cash	Debit	Credit
	747,968	
Bonds Payable		747,968
<i>(to record the bond issue)</i>		

June 30, 2012

Interest Expense	33,659	
Bonds Payable (difference)		1,659
Cash (\$800,000 x 8% x 1/2)		32,000
<i>(First semiannual interest payment)</i>		

December 31, 2012

Interest Expense	33,733	
Bonds Payable (difference)		1,733
Cash (\$800,000 x 8% x 1/2)		32,000
<i>(Second semiannual interest payment)</i>		

141. On January 1, 2012, Ripstick Park issues \$800,000 of 8% bonds, due in ten years, with interest payable semiannually on June 30 and December 31 each year. Assuming the market interest rate on the issue date is 7%, the bonds will issue at \$856,850.

1. Complete the first three rows of an amortization table.
2. Record the bond issue on January 1, 2012, and the first two semi-annual interest payments on June 30, 2012, and December 31, 2012.

142. Sun City issues bonds on January 1, 2012 that pay interest semiannually on June 30 and December 31. Portions of the bond amortization schedule appear below:

(1) Date	(2) Cash Paid	(3) Interest Expense	(4) Decrease in Carrying Value	(5) Carrying Value
1/1/2012				\$55,338,768
6/30/2012	2,000,000	1,936,857	63,143	55,275,625
12/31/2012	2,000,000	1,934,647	65,353	55,210,272
◆	◆	◆	◆	◆
◆	◆	◆	◆	50,474,924
6/30/2031	2,000,000	1,766,622	233,378	50,241,546
12/31/2031	2,000,000	1,758,454	241,546	\$50,000,000

Required:

1. Were the bonds issued at face amount, a discount, or a premium?
2. What is the original issue price of the bonds?
3. What is the face amount of the bonds?
4. What is the term to maturity in years?
5. What is the stated annual interest rate?
6. What is the market annual interest rate?
7. What is the total cash interest paid over the term to maturity?

143. Pizza Pier retires its 7% bonds for \$70,000 before their scheduled maturity. At the time, the bonds have a carrying value of \$74,937. Record the early retirement of the bonds.

144. Magic Mountain retires its 8% bonds for \$125,000 before their scheduled maturity. At the time, the bonds have a carrying value of \$118,000. Record the early retirement of the bonds.

145. On January 1, 2012, Julee Enterprises borrows \$30,000 to purchase a new Toyota Highlander by agreeing to a 6%, 4-year note with the bank. Payments of \$704.55 are due at the end of each month with the first installment due on January 31, 2012. Record the issuance of the note payable and the first two monthly payments.

146. Western World has the following selected data (\$in millions):

<u>Balance Sheet Data</u>	2012	2011
Total Assets	\$2,511	\$2,315
Total Liabilities	1,685	1,525
Total Stockholders' Equity	826	790

<u>Income Statement Data</u>	
Sales	\$786
Interest Expense	77
Tax Expense	32
Net Income	80

Based on these amounts, calculate the following ratios for Western World in 2012:

1. Debt to equity ratio.
2. Return on assets ratio.
3. Return on equity ratio.
4. Times interest earned ratio.

147. Two leading home improvement chains in the United States are Home Depot and Lowes. Selected financial data for these two close competitors are as follows:

(\$ in millions)	<u>Home Depot</u>	<u>Lowes</u>
Total assets	\$40,877	\$33,005
Total liabilities	21,484	13,936
Total stockholders' equity	19,393	19,069
Sales	\$66,176	\$47,220
Interest expense	676	287
Tax expense	1,362	1,042
Net income	2,620	1,783

1. Calculate the debt to equity ratio for Home Depot and Lowes. Which company has the higher ratio?
2. Calculate the times interest earned ratio for Home Depot and Lowes. Which company is better able to meet interest payments as they become due?

148. What is capital structure? Why would a company choose to borrow money rather than issue additional stock?

149. Why do some companies issue bonds rather than borrow money directly from a bank?

150. Contrast the following types of bonds:

- (a) Secured and unsecured.
- (b) Term and serial.
- (c) Callable and convertible.

151. Explain how each of the columns in an amortization schedule is calculated, assuming the bonds are issued at a discount. How is the amortization schedule different if bonds are issued at a premium?

152. What are the potential risks and rewards of carrying additional debt? How does additional debt affect a company's return to investors?

153. Listed below are five terms followed by a list of phrases that describe or characterize the terms. Match each phrase with the best term placing the letter designating the term in the space provided.

1. Stated interest rate The true interest rate used by investors to value a ___ bond. ___

2. Market interest rate The stated interest rate is more than the market ___ interest rate. ___

3. Bonds issued at a premium The stated interest rate equals the market interest ___ rate. ___

4. Bonds issued at a discount The stated interest rate is less than the market interest ___ rate. ___

5. Bonds issued at face value The rate quoted in the bond contract used to calculate ___ the cash payments for interest. ___

154. Listed below are ten terms followed by a list of phrases that describe or characterize the terms. Match each phrase with the best term placing the letter designating the term in the space provided.

1. Debt to equity ratio The rate quoted in the bond contract used to calculate the ___ cash payments for interest. ___

2. Market interest rate The lessor owns the asset and the lessee simply uses the ___ asset temporarily. ___

3. Operating lease Total liabilities divided by total stockholders' equity; ___ measure a company's risk. ___

4. Premium The true interest rate used by investors to value a bond. ___

5. Amortization schedule The issue price is below its face amount. ___

6. Capital lease Provides a summary of the cash interest payments, interest ___ expense, and changes in carrying value for debt instruments. ___

7. Stated interest rate The lessee essentially buys an asset and borrows ___ the money through a lease to pay for the asset. ___

8. Sinking fund The issue price is above its face amount. ___

9. Times interest earned ratio Ratio that compares interest expense with income available ___ to pay those charges. ___

10. Discount An investment fund used to set aside money to be used to ___ pay debts as they come due. ___

155. Listed below are four bond terms followed by a list of definitions. Match (by letter) the bond terms with their definitions. Each letter is used only once.

1. Matures in installments.

Serial bond.

2. Matures on a single date.

Term bond.

3. Supported by specific assets pledged as collateral by the issuer

Secured bond.

4. Secured only by the "full faith and credit" of the issuing corporation.

Unsecured
bond.

156. Listed below are four bond terms followed by a list of definitions. Match (by letter) the bond terms with their definitions. Each letter is used only once.

1. A contract between the issuer and the investor

Callable bond.

2. Allows the investor to transfer each bond into shares of common stock

Convertible
bond.

3. Allows the issuer to pay off the bonds early at a fixed price

Bond
issue costs.

4. Includes underwriting, legal, accounting, registration, and printing fees

Bond
indenture.

157. Listed below are eight bond terms followed by a list of definitions. Match (by letter) the bond terms with their definitions. Each letter is used only once.

- | | |
|--|--|
| 1. Allows the issuer to pay off the bonds early at a fixed price | Serial bond. <u> </u> |
| 2. Matures on a single date | Callable bond. <u> </u> |
| 3. Supported by specific assets pledged as collateral by the issuer | Convertible <u> </u>
bond. <u> </u> |
| 4. Allows the investor to transfer each bond into shares of common stock | Bond <u> </u>
issue costs. <u> </u> |
| 5. A contract between the issuer and the investor | Bond <u> </u>
indenture. <u> </u> |
| 6. Secured only by the "full faith and credit" of the issuing corporation | Secured bond. <u> </u> |
| 7. Includes underwriting, legal, accounting, registration, and printing fees | Unsecured <u> </u>
bond. <u> </u> |
| 8. Matures in installments | Term bond. <u> </u> |

Ch9 Key

1. TRUE
2. FALSE
3. TRUE
4. FALSE
5. TRUE
6. TRUE
7. FALSE
8. TRUE
9. FALSE
10. FALSE
11. TRUE
12. TRUE
13. FALSE
14. TRUE
15. TRUE
16. FALSE
17. TRUE
18. TRUE
19. FALSE
20. TRUE
21. TRUE
22. TRUE
23. TRUE
24. FALSE
25. TRUE
26. FALSE
27. TRUE
28. FALSE
29. TRUE
30. TRUE
31. TRUE
32. FALSE

- 33. TRUE
- 34. FALSE
- 35. TRUE
- 36. TRUE
- 37. TRUE
- 38. FALSE
- 39. TRUE
- 40. TRUE
- 41. FALSE
- 42. TRUE
- 43. TRUE
- 44. B
- 45. C
- 46. C
- 47. D
- 48. A
- 49. D
- 50. D
- 51. A
- 52. C
- 53. D
- 54. C
- 55. B
- 56. C
- 57. B
- 58. C
- 59. C
- 60. C
- 61. A
- 62. C
- 63. B
- 64. C
- 65. B
- 66. A
- 67. D

68. C
69. D
70. B
71. C
72. B
73. C
74. D
75. D
76. D
77. B
78. D
79. C
80. B
81. B
82. A
83. C
84. A
85. B
86. C
87. A
88. B
89. C
90. B
91. A
92. C
93. A
94. B
95. C
96. C
97. C
98. D
99. A
100. A
101. C
102. B

- 103. B
- 104. D
- 105. D
- 106. B
- 107. B
- 108. C
- 109. C
- 110. D
- 111. C
- 112. D
- 113. D
- 114. A
- 115. A
- 116. D
- 117. B
- 118. A
- 119. A
- 120. A
- 121. B
- 122. D
- 123. A
- 124. C
- 125. C
- 126. C
- 127. A
- 128. B

	<u>Issue Bonds</u>	<u>Issue Stock</u>
Operating income	\$5,000,000	\$5,000,000
Interest expense (bonds only)	600,000	
Income before tax	<u>4,400,000</u>	<u>5,000,000</u>
Income tax expense (30%)	1,320,000	1,500,000
Net income	<u>\$3,080,000</u>	<u>\$3,500,000</u>
# of shares	3,000,000	4,000,000
Earnings per share (Net income / # of shares)	<u>\$1.03</u>	<u>\$0.88</u>

129.

Issuing bonds results in earnings per share of \$1.03 compared with earnings per share of \$0.88 for issuing stock.

130. 1. Convertible bonds sell at a higher price and require a lower interest rate than bonds without a conversion feature.

2. Investors would benefit if the market price of the common stock goes above \$40 per share ($\$1,000/25 \text{ shares} = \40 per share) assuming the current market price of the bond is \$1,000. Example: If the company's stock price goes to \$50 per share, the convertible bondholder could trade a \$1,000 bond for 25 shares of stock worth \$50 per share (or \$1,250). Prior to conversion the bondholder still receives interest on the convertible bond.

131. If the market rate is 8%, the bonds will be issued at \$186,410 (a discount).

Calculator Input		
Bond Characteristics	Key	Amount
1. Face amount	FV	\$200,000
2. Interest payment	PMT	$\$7,000 = \$200,000 \times 7\% \times \frac{1}{2} \text{ year}$
3. Market interest rate	I	$4\% = 8\% / 2 \text{ semiannual periods}$
4. Periods to maturity	N	$20 = 10 \text{ years} \times 2 \text{ periods each year}$
Calculator Output		
Issue price	PV	\$186,410

132. If the market rate is 6%, the bonds will be issued at \$219,600 (a premium).

Calculator Input		
Bond Characteristics	Key	Amount
1. Face amount	FV	\$200,000
2. Interest payment	PMT	$\$7,000 = \$200,000 \times 7\% \times \frac{1}{2} \text{ year}$
3. Market interest rate	I	$3\% = 6\% / 2 \text{ semiannual periods}$
4. Periods to maturity	N	$30 = 15 \text{ years} \times 2 \text{ periods each year}$
Calculator Output		
Issue price	PV	\$219,600

133. 1. Premium. The issue price is \$21,421,240.

Calculator Input		
Bond Characteristics	Key	Amount
1. Face amount	FV	\$20,000,000
2. Interest payment	PMT	\$800,000 = \$20,000,000 × 8% × ½ year
3. Market interest rate	I	3.5% = 7% / 2 semiannual periods
4. Periods to maturity	N	20 = 10 years × 2 periods each year
Calculator Output		
Issue price	PV	\$21,421,240

2. Face amount. The issue price is \$20,000,000.

Calculator Input		
Bond Characteristics	Key	Amount
1. Face amount	FV	\$20,000,000
2. Interest payment	PMT	\$800,000 = \$20,000,000 × 8% × ½ year
3. Market interest rate	I	4% = 8% / 2 semiannual periods
4. Periods to maturity	N	20 = 10 years × 2 periods each year
Calculator Output		
Issue price	PV	\$20,000,000

3. Discount. The issue price is \$18,699,206.

Calculator Input		
Bond Characteristics	Key	Amount
1. Face amount	FV	\$20,000,000
2. Interest payment	PMT	\$800,000 = \$20,000,000 × 8% × ½ year
3. Market interest rate	I	4.5% = 9% / 2 semiannual periods
4. Periods to maturity	N	20 = 10 years × 2 periods each year
Calculator Output		
Issue price	PV	\$18,699,206

	Debit	Credit
1.		
January 1, 2012		
Cash	80,000	
Bonds Payable		80,000
<i>(to record the bond issue)</i>		
2.		
June 30, 2012		
Interest Expense	2,800	
Cash (\$80,000 × 7% × ½)		2,800
<i>(First semiannual interest payment)</i>		

134.

1.		Debit	Credit
January 1, 2012			
Cash		74,564	
	Bonds Payable		74,564
	<i>(to record the bond issue)</i>		
2.			
June 30, 2012			
Interest Expense ($\$74,564 \times 8\% \times \frac{1}{2}$)		2,983	
	Bonds Payable (difference)		183
	Cash ($\$80,000 \times 7\% \times \frac{1}{2}$)		2,800
	<i>(First semiannual interest payment)</i>		

135.

1.		Debit	Credit
January 1, 2012			
Cash		85,951	
	Bonds Payable		85,951
	<i>(to record the bond issue)</i>		
2.			
June 30, 2012			
Interest Expense ($\$85,951 \times 6\% \times \frac{1}{2}$)		2,579	
	Bonds Payable (difference)	221	
	Cash ($\$80,000 \times 7\% \times \frac{1}{2}$)		2,800
	<i>(First semiannual interest payment)</i>		

136.

1.		Debit	Credit
Cash		74,564	
	Bonds Payable		74,564
	<i>(to record the bond issue)</i>		
2.			
Interest Expense		2,983	
	Bonds Payable		183
	Cash		2,800
	<i>(First interest payment)</i>		

137.

1.		Debit	Credit
Cash		85,951	
	Bonds Payable		85,951
	<i>(to record the bond issue)</i>		
2.			
Interest Expense		2,579	
	Bonds Payable	221	
	Cash		2,800
	<i>(First interest payment)</i>		

138.

<u>January 1, 2012</u>		
Cash	Debit	Credit
	800,000	
Bonds Payable		800,000
<i>(to record the bond issue)</i>		

<u>June 30, 2012</u>		
Interest Expense	32,000	
Cash (\$800,000 x 8% x ½)		32,000
<i>(First semiannual interest payment)</i>		

<u>December 31, 2012</u>		
Interest Expense	32,000	
Cash (\$800,000 x 8% x ½)		32,000
<i>(Second semiannual interest payment)</i>		

139.

140.

(1)	(2)	(3)	(4)	(5)
Date	Cash Paid Face Amount x Stated Rate	Interest Expense Carrying Value x Market Rate	Increase in Carrying Value (2) – (3)	Carrying Value Prior Carrying Value – (4)
1/1/12				\$ 856,850
6/30/12	\$ 32,000	\$ 29,990	\$ 2,010	854,840
12/31/12	32,000	29,919	2,081	852,759

141.

<u>January 1, 2012</u>		
Cash	Debit	Credit
	856,850	
Bonds Payable		856,850
<i>(to record the bond issue)</i>		

<u>June 30, 2012</u>		
Interest Expense	29,990	
Bonds Payable (difference)	2,010	
Cash (\$800,000 x 8% x ½)		32,000
<i>(First semiannual interest payment)</i>		

<u>December 31, 2012</u>		
Interest Expense	29,919	
Bonds Payable (difference)	2,081	
Cash (\$800,000 x 8% x ½)		32,000
<i>(Second semiannual interest payment)</i>		

142. 1. Premium.

2. \$55,338,768.

3. \$50,000,000.

4. 20 years.

5. 8%. [(\$2,000,000 cash paid ÷ \$50,000,000 face value) x 2]

6. 7%. [(\$1,936,857 interest expense ÷ \$55,338,768 carrying value) x 2]

7. \$80,000,000. (\$2,000,000 x 40 payments)

	Debit	Credit
Bonds Payable	74,937	
Gain		4,937
Cash		70,000
<i>(Entry to record early retirement)</i>		

143.

		Debit	Credit
	Bonds Payable	118,000	
	Loss	7,000	
	Cash		125,000
144.	<i>(Entry to record early retirement)</i>		
		Debit	Credit
	<u>January 1, 2012</u>		
	Cash	30,000	
145.	Notes Payable		30,000
	<i>(Issuance of note payable)</i>		
	<u>January 31, 2012</u>		
	Interest Expense (\$30,000 x 6% x 1/12)	150.00	
	Notes Payable (difference)	554.55	
	Cash (monthly payment)		704.55
	<i>(to record the first monthly payment)</i>		
	<u>February 28, 2012</u>		
	Interest Expense [(\$30,000 - \$554.55) x 6% x 1/12]	147.23	
	Notes Payable (difference)	557.32	
	Cash (monthly payment)		704.55
	<i>(to record the second monthly payment)</i>		

1.

	Total		Stockholders'		Debt to Equity Ratio
	Liabilities	÷	Equity	=	
146.	\$1,685	÷	\$826	=	2.04

2.

	Net		Average Total		Return on Assets Ratio
	Income	÷	Assets	=	
	\$80	÷	\$2,413*	=	3.3%

*(\$2,511 + \$2,315)/2

3.

	Net		Average		Return on Equity Ratio
	Income	÷	Stockholders'	=	
	Equity		Equity	=	
	\$80	÷	\$808*	=	9.9%

*(\$826 + \$790)/2

4.

	Net Income +		Interest		Times Interest Earned
	Interest + Taxes	÷		=	Ratio
	\$189	÷	\$77	=	2.5

1.					
		Total	÷	Stockholders'	Debt to Equity Ratio
	(\$ in millions)	Liabilities		Equity	=
	Home Depot	\$21,484	÷	\$19,393	= 1.11
147.	Lowe's	\$13,936	÷	\$19,069	= 0.73

Home Depot has a higher debt to equity ratio than Lowe's. Lowe's, with a lower debt to equity ratio is considered to be less risky.

2.					
		Net Income + Interest	÷	Interest	= Times Interest
	(\$ in millions)	+ Taxes			Earned Ratio
	Home Depot	\$4,658	÷	\$676	= 6.9 times
	Lowe's	\$3,112	÷	\$287	= 10.8 times

Lowe's, with a times interest earned ratio of 10.8 times is better able to meet interest payments as they become due than Home Depot with a ratio of 6.9 times.

148. Capital structure is the mixture of liabilities and stockholders' equity a business uses. One of the primary reasons a company chooses to borrow money relates to taxes. Interest expense incurred when borrowing money is tax deductible, while dividends paid to stockholders is *not* tax deductible. Due to tax considerations, debt can be a less costly form of financing. A second reason relates to control. If a company issues additional shares to investors, control in the company is shared with the new shareholders. If a company borrows funds, voting control in the company is retained.

149. A company that borrows by issuing bonds is effectively by-passing the bank and borrowing directly from the investing public, usually at a lower interest rate than in a bank loan. However, issuing bonds entails significant bond issue costs that often exceed 5% of the amount borrowed. For smaller loans, the additional bond issue costs exceed the savings from a lower interest rate, making it more economical to borrow from a bank. For loans of \$20 million or more, the interest rate savings often exceed the additional bond issuance costs, making a bond issue more attractive.

150. (a) Secured bonds are supported by assets pledged as collateral. Unsecured bonds, also referred to as debentures, are not backed by a specific asset. (b) Term bonds require payment of the full principal amount of the bond at a single maturity date. Serial bonds require payments in installments over a series of years. (c) Callable bonds allow the issuer to repay the bonds before their scheduled maturity date at a specified call price. Convertible bonds allow the investor to convert each bond into a specified number of shares of common stock.

151. Cash paid is calculated as the face amount of the bonds times the stated interest rate. Interest expense is the carrying value times the market rate. The difference between interest expense and the cash paid increases the carrying value of the bonds. At the maturity date, the carrying value will equal the face amount.

The amortization schedule is similar when bonds are issued at a premium, except that the difference between interest expense and the cash paid *decreases*, rather than increases, the carrying value of the bonds over time.

152. Additional debt increases risk. Failure to repay debt, or the interest associated with the debt, on a timely basis may result in default and perhaps even bankruptcy. Other things being equal, the higher the debt, the higher the risk of bankruptcy. Additional debt also offers potential rewards. If a company earns a return in excess of the cost of borrowing the funds, stockholders are provided with a total return greater than what could have been earned with equity funds alone. Unfortunately, borrowing is not always favorable. Sometimes the cost of borrowing the funds exceeds the returns they generate.

If a company has returns in excess of the rate charged on borrowed funds, assuming additional debt will result in a higher return to investors. However, if returns should fall below the rate charged on borrowed funds, assuming additional debt will result in lower overall returns to investors.

153. Market interest rate :: The true interest rate used by investors to value a bond. *and* Bonds issued at a premium :: The stated interest rate is more than the market interest rate. *and* Bonds issued at face value :: The stated interest rate equals the market interest rate. *and* Bonds issued at a discount :: The stated interest rate is less than the market interest rate. *and* Stated interest rate :: The rate quoted in the bond contract used to calculate the cash payments for interest.

154. Stated interest rate :: The rate quoted in the bond contract used to calculate the cash payments for interest. *and* Operating lease :: The lessor owns the asset and the lessee simply uses the asset temporarily. *and* Debt to equity ratio :: Total liabilities divided by total stockholders' equity; measure a company's risk. *and* Market interest rate :: The true interest rate used by investors to value a bond. *and* Discount :: The issue price is below its face amount. *and* Amortization schedule :: Provides a summary of the cash interest payments, interest expense, and changes in carrying value for debt instruments. *and* Capital lease :: The lessee essentially buys an asset and borrows the money through a lease to pay for the asset. *and* Premium :: The issue price is above its face amount. *and* Times interest earned ratio :: Ratio that compares interest expense with income available to pay those charges. *and* Sinking fund :: An investment fund used to set aside money to be used to pay debts as they come due.

155. Matures in installments. :: Serial bond. *and* Matures on a single date. :: Term bond. *and* Supported by specific assets pledged as collateral by the issuer :: Secured bond. *and* Secured only by the "full faith and credit" of the issuing corporation. :: Unsecured bond.

156. Allows the issuer to pay off the bonds early at a fixed price :: Callable bond. *and* Allows the investor to transfer each bond into shares of common stock :: Convertible bond. *and* Includes underwriting, legal, accounting, registration, and printing fees :: Bond issue costs. *and* A contract between the issuer and the investor :: Bond indenture.

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