

- d. On-line services
- e. Hospitals
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Spreadsheet Templates 2, 14, 15

## QUESTIONS AND PROBLEMS

### Basic

(Questions 1–25)

1. **Calculating Liquidity Ratios.** SDJ, Inc., has net working capital of \$900, current liabilities of \$4,320, and inventory of \$1,900. What is the current ratio? What is the quick ratio?
2. **Calculating Profitability Ratios.** Bennett's Bird Cages has sales of \$41 million, total assets of \$32 million, and total debt of \$11 million. If the profit margin is 12 percent, what is net income? What is ROA? What is ROE?
3. **Calculating the Average Collection Period.** Pirate Lumber Yard has a current accounts receivable balance of \$308,165. Credit sales for the year just ended were \$2,131,516. What is the receivables turnover? The days' sales in receivables? How long did it take on average for credit customers to pay off their accounts during the past year?
4. **Calculating Inventory Turnover.** Keegan Corporation has ending inventory of \$921,386, and cost of goods sold for the year just ended was \$1,843,127. What is the inventory turnover? The days' sales in inventory? How long on average did a unit of inventory sit on the shelf before it was sold?
5. **Calculating Leverage Ratios.** Myrtle Golf, Inc., has a total debt ratio of .45. What is its debt-equity ratio? What is its equity multiplier?
6. **Calculating Market Value Ratios.** Sandy's Baby-sitting, Inc., had additions to retained earnings for the year just ended of \$300,000. The firm paid out \$220,000 in cash dividends, and it has ending total equity of \$5 million. If Sandy's currently has 300,000 shares of common stock outstanding, what are earnings per share? Dividends per share? What is book value per share? If the stock currently sells for \$25 per share, what is the market-to-book ratio? The price-earnings ratio?
7. **Du Pont Identity.** If Roten Rooters, Inc., has an equity multiplier of 1.60, total asset turnover of 1.05, and a profit margin of 11 percent, what is its ROE?
8. **Du Pont Identity.** Jiminy Cricket Removal has a profit margin of 12 percent, total asset turnover of 1.35, and ROE of 17.20 percent. What is this firm's debt-equity ratio?
9. **Calculating Average Payables Period.** For the past year, BDJ, Inc., had a cost of goods sold of \$18,364. At the end of the year, the accounts payable balance was \$3,105. How long on average did it take the company to pay off its suppliers during the year? What might a large value for this ratio imply?
10. **Equity Multiplier and Return on Equity.** Sunny Beach Chair Company has a debt-equity ratio of .80. Return on assets is 8.4 percent, and total equity is \$430,000. What is the equity multiplier? Return on equity? Net income?
11. **Internal Growth.** If Highfield Hobby Shop has a 19 percent ROA and a 30 percent payout ratio, what is its internal growth rate?
12. **Sustainable Growth.** If the Rooster Driving School has a 17 percent ROE and a 40 percent payout ratio, what is its sustainable growth rate?
13. **Sustainable Growth.** Based on the following information, calculate the sustainable growth rate for Chicago Chocolate Pies:

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Profit margin = 10.2%  
 Capital intensity ratio = .70  
 Debt-equity ratio = .50  
 Net income = \$30,000  
 Dividends = \$6,000

What is the ROE here?

14. **Sustainable Growth.** Assuming the following ratios are constant, what is the sustainable growth rate?

Total asset turnover = 1.90  
 Profit margin = 6.5%  
 Equity multiplier = 2.05  
 Payout ratio = 30%

Bethesda Mining Company reports the following balance sheet information for 2002 and 2003. Use this information to work Problems 15 through 17.

BETHESDA MINING COMPANY					
Balance Sheets as of December 31, 2002 and 2003					
	2002	2003		2002	2003
<b>Assets</b>			<b>Liabilities and Owners' Equity</b>		
Current assets			Current liabilities		
Cash	\$ 16,150	\$ 19,125	Accounts payable	\$161,710	\$137,830
Accounts receivable	48,734	52,816	Notes payable	74,391	96,318
Inventory	100,387	137,806	Total	\$236,101	\$234,148
Total	\$165,271	\$209,747	Long-term debt	\$150,000	\$125,000
Fixed Assets			Owners' equity		
Net plant and equipment	\$537,691	\$535,227	Common stock and paid-in surplus	\$150,000	\$150,000
			Retained earnings	166,861	235,826
			Total	\$316,861	\$385,826
Total assets	\$702,962	\$744,974	Total liabilities and owners' equity	\$702,962	\$744,974

15. **Preparing Standardized Financial Statements.** Prepare the 2002 and 2003 common-size balance sheets for Bethesda Mining.
16. **Calculating Financial Ratios.** Based on the balance sheets given for Bethesda Mining, calculate the following financial ratios for each year:
- Current ratio
  - Quick ratio
  - Cash ratio
  - Debt-equity ratio and equity multiplier
  - Total debt ratio
17. **Du Pont Identity.** Suppose that the Bethesda Mining Company had sales of \$1,986,382 and net income of \$157,320 for the year ending December 31, 2003. Calculate the Du Pont identity.

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