

**Chapter 5 – Financial & Managerial Accounting for Decision Makers, 2<sup>nd</sup> Edition**  
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**Solutions to Practice Quiz**

**Topic: Liquidity Ratios**

**LO: 4**

1. Selected balance sheet and income statement information is presented for four companies within the same industry (in millions):

	Company 1	Company 2	Company 3	Company 4
Current assets	\$1,892	\$2,601	\$3,987	\$2,201
Current liabilities	\$ 854	\$2,887	\$3,334	\$1,453
Total liabilities	\$3,891	\$7,011	\$6,533	\$3,942
Total liabilities and stockholders' equity	\$4,843	\$13,460	\$13,045	\$6,566

Based on current ratio calculations for all companies, which company is more liquid?

- a. Company 1
- b. Company 2
- c. Company 3
- d. Company 4

*Answer: a*

Rationale:

<u>Company</u>	<u>Current ratio</u>
Company 1	$\$1,892 / \$854 = 2.22$
Company 2	$\$2,601 / \$2,887 = 0.90$
Company 3	$\$3,987 / \$3,334 = 1.20$
Company 4	$\$2,201 / \$1,453 = 1.51$

**Topic: Compute RNOA**

**LO: 5**

2. Use the following selected balance sheet and income statement information for James Company (below in \$millions) to compute the return on net operating assets (RNOA) to the nearest hundredth of a percent.

Operating profit before tax	Average net operating Assets	Sales	Tax rate on operating profit
\$41,343	\$265,376	\$740,116	37.8%

- a. 35.86%
- b. 37.80%
- c. 9.69%
- d. 15.58%

*Answer: c*

Rationale: Net operating profit after tax =  $\$41,343 - (\$41,343 \times 37.8\%) = \$25,715$  RNOA =  $\$25,715 / \$265,376 = 9.69\%$

**Topic: Solvency Ratios****LO: 4**

3. Selected balance sheet and income statement information is presented for four companies within the same industry (in millions):

	Company 1	Company 2	Company 3	Company 4
Current assets	\$927	\$2,601	\$3,987	\$2,201
Current liabilities	\$854	\$2,887	\$3,334	\$1,453
Total liabilities	\$3,891	\$7,011	\$6,533	\$3,942
Total liabilities and stockholders' equity	\$4,843	\$13,460	\$13,045	\$6,566

Based on your calculations of the liabilities to equity ratio for all companies, which company is more solvent?

- a. Company 1
- b. Company 2
- c. Company 3
- d. Company 4

Answer: c

Rationale:	<u>Company</u>	<u>Liabilities-to-equity ratio</u>
	Company 1	$\$3,891 / (\$4,843 - \$3,891) = 4.09$
	Company 2	$\$7,011 / (\$13,460 - \$7,011) = 1.09$
	Company 3	$\$6,533 / (\$13,045 - \$6,533) = 1.00$
	Company 4	$\$3,942 / (\$6,566 - \$3,942) = 1.50$

**Topic: Times-Interest-Earned****LO: 4**

4. Morgan Company has sales of \$1 million, tax rate of 40%, net operating profit margin before interest and taxes of 6% and total interest charges of \$10,000 per year. What is the times interest earned ratio?
- a. 4.0
  - b. 7.0
  - c. 3.0
  - d. 6.0

Answer: d

Rationale:  $(\$1,000,000 \times 6\%) / \$10,000 = 6.0$

**Topic: Common-Size Comparative Income Statement****LO: 1**

5. Washington, Inc., reported the following amounts of net income (in thousands) from 2011 to 2013:

2013	2012	2011
\$270	\$180	\$110

Based on this information, relative to the prior year, the percentage change in net income:

- a. Was the same in both 2012 and 2013.
- b. Was smaller in 2013 than in 2012.
- c. Was larger in 2013 than in 2012.
- d. Cannot be determined without knowing more information.

*Answer: b*

*Rationale:*  $90/180 = 50\%$  while  $70/110 = 63.6\%$

**Topic: Asset Turnover****LO: 3**

6. A company has the following values: PM = 0.09; EWI = \$2,732; Average total assets = \$44,360. Asset turnover (AT) is:
- a. 0.68
  - b. 0.06
  - c. 1.46
  - d. 16.24

*Answer: a*

*Rationale:*  $AT = (\$2,732 / \$44,360) / 0.09 = 0.68$

**Use the following information for Questions 7 – 9:**

Below are data from the financial statements of Crystal Company (in \$millions).

**Income statement data for 2013:**

Net income	\$ 390
Net sales	1,530
Operating expenses	440
Cost of goods sold	520

**Balance sheet data:**

Total equity, Dec. 31, 2012	\$ 3,150
Total equity, Dec. 31, 2013	3,650
Operating assets, Dec. 31, 2012	2,760
Operating assets, Dec. 31, 2013	2,240
Operating liabilities, Dec. 31, 2012	1,100
Operating liabilities, Dec. 31, 2013	1,300

<b>Tax Rate</b>	40%
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**Topic: Operating Income**

**LO: 5**

7. What was Crystal's operating income?
- \$1,010
  - \$ 390
  - \$ 570
  - \$1,090

*Answer: c*

*Rationale:  $\$1,530 - \$520 - \$440 = \$570$*

**Topic: Return on Equity**

**LO: 2**

8. What is Crystal's return on equity?
- 16.8%
  - 25.5%
  - 37.3%
  - 11.5%

*Answer: d*

*Rationale: Average Total Equity =  $(\$3,150 + \$3,650) \div 2 = \$3,400$   
 $\$390/\$3,400 = 11.5\%$*

**Topic: Return on Net Operating Assets**

**LO: 5**

9. What is Crystal's return on net operating assets?

- a. 13.7%
- b. 26.3%
- c. 43.8%
- d. 22.8%

*Answer: b*

Rationale:

$$\frac{\text{Net operating profit after taxes}}{\text{Average net operating assets}} = \text{Return on net operating assets (RNOA)}$$

$$\text{Net operating profit after taxes} = \$570 - (\$570 \times 40\%) = \$342$$

$$\text{Net operating assets (NOA)} = \text{Operating assets} - \text{Operating liabilities}$$

$$2012 \text{ NOA} = \$2,760 - 1,100 = \$1,660$$

$$2013 \text{ NOA} = \$2,240 - 1,300 = \$940$$

$$(\$1,660 + 940) / 2 = \$1,300 \text{ Average net operating assets}$$

$$\$342 / \$1,300 = 26.3\%$$

**Topic: ROE Computation**

**LO: 2**

10. Barton Company's 2013 balance sheet shows average shareholders' equity of \$4,435 million, net operating profit after tax of \$1,378 million, net income of \$1,015 million, and common shares issued of \$897 million. The company has no preferred shares issued. Barton's return on common equity for the year is:

- a. 22.9%
- b. 31.1%
- c. 437%
- d. 20.2%

*Answer: a*

$$\text{Rationale: ROE} = \text{Net income} / \text{Average shareholders' equity} = \$1,015 \text{ million} / \$4,435 \text{ million} = 22.9\%$$