Thirteenth Edition

Retail Management

A Strategic Approach

CHAPTER 12: Operations Management: Financial Dimensions

Retail Mathematics Problems

Here are extra math problems on operations. The answers appear at the end of this file.

A: Online Operations Management Problems

1. A retailer's current assets are $200,000. Its fixed assets are $300,000. Current liabilities are $75,000 and fixed liabilities are $125,000. What is the firm's net worth?	a. $ 75,000
	b. $125,000
	c. $250,000
	d. $300,000

2. A retailer's fixed assets are $350,000. Current liabilities are $185,000 and fixed liabilities are $250,000. It has a net worth of $80,000. What is the value of the firm's current assets?	a. $15,000
	b. $50,000
	c. $165,000
	d. $463,000

3. A retailer has net sales of $500,000, total assets of $1,050,000, and a net profit of $60,000. What is its asset turnover?	a. 40%
	b. 48%
	c. 100%
	d. 200%

4. What is the net profit margin for the retailer in problem 3?	a. 4% b. 6% c. 10% d. 12%

5. What is the return on assets for the retailer in problem 3?	a. 4% b. 6% c. 10% d. 12%

6. A retailer has these financial results: current assets, $400,000; fixed assets, $1,000,000; current liabilities, $420,000; fixed liabilities, $920,000; net sales, $10,000,000; and net profit, $120,000. What is its net worth?	a. $60,000 b. $160,000 c. $500,000 d. $580,000

7. What is the asset turnover for the retailer in problem 6?	a. 1.4 x b. 5.7 x c. 7.1 x d. 16.6 x

8. What is the net profit margin for the retailer in problem 6?	a. 1.2 % b. 1.8% c. 15.0% d. 17.5%

9. What is the return on assets (ROA) for the retailer in problem 6?	a. 1.5% b. 5.0% c. 8.6% d. 11.5%

10. What is the financial leverage ratio for the retailer in problem 6?	a. 8.8 b. 10.3 c. 12.0 d. 23.3

11. What is the return on net worth for the retailer in problem 6?	a. 50% b. 75% c. 125% d. 200%

12. A retailer has net sales of $600,000, a gross profit of $220,000, operating costs of $100,000, and other costs of $10,000. What is its cost of goods sold?	a. $ 70,000 b. $170,000 c. $180,000 d. $380,000

13. What is the net profit before taxes for the retailer in problem 12?	a. $ 70,000 b. $110,000 c. $180,000 d. $380,000

14. During January, a retailer has net sales of $30,000. Fifty percent of these sales are on credit and payment will not be received until March. Payments in January for customer credit purchases made in prior months equal $5,000. The retailer's cost of goods sold and operating expenses for January total $28,000. What is the retailer's cash flow in January?	a. -$8,000 b. -$3,000 c. $3,000 d. $8,000

15. During October, a retailer has net sales of $25,000. All of its sales are in cash. The firm buys merchandise costing $30,000 in October, but has deferred billing privileges. It only pays for half of the merchandise in October. Its October operating expenses are $5,000. There are no other costs in October. What is the retailer's October cash flow?	a. -$13,000 b. $ 2,000 c. $ 5,000 d. $10,000

B: Online Key Business Ratio Problems

1. A retailer has accounts receivable of $60,000, total current liabilities of $40,000, and $100,000 in cash. What is the quick ratio?	a. 1.4 b. 1.5 c. 2.0 d. 4.0

2. Assume that the retailer in problem 1 has total inventory on hand of $120,000. What is the current ratio?	a. 0.65 b. 3.00 c. 4.00 d. 7.00

3. A clothing store has accounts receivable totaling $10,000, accounts payable totaling $45,000, and net sales of $100,000. What is the collection period?	a. 37 b. 183 c. 227 d. 365

4. Assume that the retailer in problem 3 has accounts receivable of $15,000 and net sales of $100,000. What is the new collection period?	a. 37 b. 55 c. 274 d. 335

5. A firm has total assets of $400,000, total liabilities of $350,000, and annual net sales of $1,000,000. What is the assets-to-net-sales ratio?	a. 5% b. 7% c. 30% d. 40%

6. Assuming that the firm in problem 5 has accounts payable totaling $175,000, what is the accounts-payable-to-net-sales ratio?	a. 9.5% b. 12.5% c. 15.0% d. 17.5%

7. A retailer's net dollar profit after taxes is $100,000. Annual net sales are $200,000 and total current assets are $300,000. What is the return on net sales (profit margin)?	a. 20% b. 50% c. 113% d. 170%

8. If the retailer in problem 7 had annual net sales of $240,000, what would be the return on net sales?	a. 20.8% b. 41.7% c. 94.2% d. 141.7%

9. A toy store has a net worth of $500,000 and net dollar profit after taxes of $50,000. What is the return on net worth?	a. 7.0% b. 7.5% c. 10.0% d. 17.5%

10. If the toy store in problem 9 had a net worth of $470,000, what would be the return on net worth?	a. 6.1% b. 7.5% c. 10.6% d. 27.4%

ANSWERS:

A: Online Operations Management Problems

1. d
2. c
3. b
4. d
5. b
6. a
7. c
8. a
9. c
10. d
11. d
12. d
13. b
14. a
15. c

B: Online Key Business Ratio Problems

1. d
2. d
3. a
4. b
5. d
6. d
7. b
8. b
9. c
10. c