

4.1 Net Working Capital. Winston Corporation has the following selected assets and liabilities:

Cash	\$15,000
Accounts receivable	\$20,000
Inventory	\$37,000
Land	\$70,000
Building	\$190,000
Goodwill	\$26,000
Accounts payable	\$13,000
Salaries payable	\$7,000
Taxes payable	\$19,000
Mortgage payable	\$80,000
Common stock	\$100,000
Retained earnings	\$82,000

Determine the company's net working capital.

4.8 Opportunity Cost of Not Taking Discount. What is the opportunity cost of not taking a discount when the terms are 2/20, net/45?

4.9 Optimal Cash Transaction Size. Green Corporation anticipates a cash requirement of \$1,000 over a 1-month period. It is expected that cash will be paid uniformly. The annual interest rate is 24 percent. The transaction cost of each borrowing or withdrawal is \$30. (a) What is the optimal transaction size? (b) What is the average cash balance?

4.10 The Miller–Orr Model. Heavenly Company has experienced a stochastic demand for its product, which results in fluctuating cash balances randomly. The following information is supplied:

Fixed cost of a securities transaction	\$100
Variance of daily net cash flows	\$1,000
Daily interest rate on securities (6%/360)	0.000167

Determine the optimal cash balance, upper and lower limit of cash needed, and average cash balance.

4.11 Date of Cash Receipt. The terms of sale are 3/20, net/45, May 1 dating. What is the last date the customer may pay in order to receive the discount?

4.12 Average Investment in Accounts Receivable. Milch Corporation sells on terms of net/90. Their accounts receivable are on average 20 days past due. If annual credit sales are \$800,000, what is the company's average investment in accounts receivable?

4.13 Average Investment in Accounts Receivable. The cost of product X is 30 percent of its selling price, and the carrying cost is 8 percent of selling price. Accounts are paid on average 60 days after sale. Sales per month average \$25,000. What is the investment in accounts receivable?

4.14 Average Investment in Accounts Receivable. Levine Corporation has accounts receivable of \$400,000. Its manufacturing cost approximates 35 percent of selling price. The before-tax profit margin is 16 percent, and the inventory carrying cost is 4 percent of the selling price. Sales commissions are 7 percent of sales. What is Levine's average investment in accounts receivable?

4.27 Inventory Management. XYZ Appliance Store sells an average of 160 units per month. Each order the store places is for 300 units. The cost per unit is \$5. The cost per order is \$12. Carrying cost is \$0.15 per dollar invested per year. The rate of return is 18 percent. The tax rate is 46 percent.

(a) What is the investment in average inventory? (b) What is the annual ordering cost? (c) What is the annual holding cost? (d) What is the opportunity cost of holding inventory? (e) What is the total cost of the inventory excluding the purchase price?

4.17 Credit Policy. Nelson Corporation reports the following information:

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Selling price per unit	\$70
Variable cost per unit	\$45
Fixed cost per unit	\$15
Annual credit sales	400,000 units
Collection period	3 months
Rate of return	19%

The company is considering easing its credit standards. If it does, the following is expected to result: Sales will increase by 25 percent; collection period will increase to 4 months; bad debt losses are anticipated to be 4 percent on the incremental sales; and collection costs will increase by \$34,000.

Should the proposed relaxation in credit standards be implemented?

4.18 Credit Policy. Simon Corporation is evaluating a relaxation of its credit policy. At present, 70 percent of sales are on credit and there is a gross margin of 20 percent. Additional data are:

	Current	Anticipated
Sales	\$500,000	\$640,000
Credit sales	\$410,000	\$520,000
Collection expenses	3% of credit sales	4% of credit sales
Collection period	72 days	90 days

Using 360 days in a year, answer the following questions: (a) What is the change in gross profit associated with the proposal? (b) What is the incremental change in collection expenses? (c) What is the change in average accounts receivable?

4.19 Sales Campaign. Jones Corporation is considering a sales campaign in which it will offer credit terms of 3/15, net/80. The finance manager expects that the collection period will increase from 90 days to 110 days. Information before and during the proposed campaign follows:

	% of Sales before Campaign	% of Sales during Campaign
Cash sales	20	10
Payment from		
1-15	35	25
16-120	45	65

The sales campaign is expected to raise sales from \$5 million to \$6 million. The gross profit rate is 30 percent and the rate of return is 16 percent. Sales discounts are given on cash sales.

Should the sales campaign be initiated?

4.21 Materials Cost. Grason Corporation purchases 3,000 units of a raw material at a list price of \$5 each. The supplier offers a quantity discount of 4 percent. What is the material cost of the item?

4.22 Average Investment in Inventory. West Corporation orders 4,000 units of a product at the beginning of the period for \$7 each. What is West Corporation's average investment in inventory?

4.23 Ordering Cost. Charles Corporation uses 8,500 units per year. Each order is for 200 units. The cost per order is \$13. What is the total ordering cost for the year?

4.24 Economic Order Quantity. Luster Corporation presents the following data: Usage is 400 units per month, cost per order is \$20, and carrying cost per unit is \$6.

Given these data, answer the following questions: (a) What is the economic order quantity? (b) How many orders are required each month? (c) How often should each order be placed?