# CHAPTER 6
# MERCHANDISING ACTIVITIES

## OVERVIEW OF BRIEF EXERCISES, EXERCISES, PROBLEMS, AND CRITICAL THINKING CASES

| Brief Exercises | Topic | Learning Objectives | Skills |
|---|---|---|---|
| B. Ex. 6.1 | Computation of gross profit | 2, 8 | Analysis |
| B. Ex. 6.2 | Accounts receivable subsidiary ledger | 7 | Analysis |
| B. Ex. 6.3 | Perpetual inventory system - computation of income | 2, 3, 8 | Analysis |
| B. Ex. 6.4 | Periodic inventory system - inventory balance during year | 2, 4, 8 | Analysis |
| B. Ex. 6.5 | Periodic inventory system - determine cost of goods sold | 2, 4, 8 | Analysis |
| B. Ex. 6.6 | Periodic inventory system - working backwards through the COGS section | 2, 4, 8 | Analysis |
| B. Ex. 6.7 | Periodic inventory system - closing process | 2, 4 | Analysis |
| B. Ex. 6.8 | Benefit of taking a purchase discount | 6 | Analysis |
| B. Ex. 6.9 | Sales returns and allowances | 6 | Analysis |
| B. Ex. 6.10 | Special journals | 7 | Analysis |
| B. Ex. 6.11 | Ethics, fraud, and corporate governance | 8 | Communication, judgment |

| Exercises | Topic | Learning Objectives | Skills |
|---|---|---|---|
| 6.1 | You as a student | 1, 6 | Analysis, communication, judgment |
| 6.2 | Effects of basic merchandising transactions | 1 | Analysis |
| 6.3 | Understanding inventory cost flows | 2, 5, 8 | Analysis, communication |
| 6.4 | Perpetual inventory systems | 3, 8 | Analysis, communication |
| 6.5 | Evaluating performance | 6, 8 | Analysis, communication, judgment |
| 6.6 | Taking a physical inventory | 3 | Analysis, communication |
| 6.7 | Periodic inventory systems | 4 | Analysis, communication |
| 6.8 | Relationships within periodic inventory systems | 4 | Analysis |
| 6.9 | Selecting an inventory system | 5, 8 | Communication, judgment |
| 6.10 | Cash discounts | 6 | Analysis |
| 6.11 | Evaluating performance | 8 | Analysis, communication, judgment |
| 6.12 | Comparison of inventory systems | 3–5 | Analysis, communication |
| 6.13 | Periodic inventory system | 4, 5 | Analysis, communication, judgment |

| Exercises | Topic | Learning Objectives | Skills |
|---|---|---|---|
| 6.14 | Difference between income and cash flows | 8 | Analysis, communication |
| 6.15 | Using an annual report | 8 | Analysis, communication, judgment |

| Problems Sets A, B | Topic | Learning Objectives | Skills |
|---|---|---|---|
| 6.1 A,B | Evaluating profitability | 1, 3, 8 | Analysis, communication |
| 6.2 A,B | Income statement preparation and interpretation | 1-3, 6, 8 | Analysis, communication |
| 6.3 A,B | Trend analysis | 8 | Analysis, communication |
| 6.4 A,B | Net cost and gross price methods | 3, 6 | Analysis, communication |
| 6.5 A,B | Merchandising transactions | 3, 6 | Analysis, communication, judgment |
| 6.6 A,B | Correcting Errors - Recording of Merchandising Transactions | 2, 3, 6 | Analysis, communication |
| 6.7 A,B | Accrual Accounting, Cash Flow, and Fair Value | 1, 3, 6 | Analysis, communication, judgment |
| 6.8 A,B | A comprehensive problem | 1–8 | Analysis, communication, judgment |

| Critical Thinking Cases | | | |
|---|---|---|---|
| 6.1 | Selecting an inventory system | 5 | Communication, judgment |
| 6.2 | A cost-benefit analysis | 4, 8 | Analysis, communication, judgment |
| 6.3 | Evaluating inventory systems | 3–5, 7 | Communication, judgment |
| 6.4 | Manipulating income (Ethics, fraud & corporate governance) | 8 | Communication, judgment |
| 6.5 | **Real World: CVS Corporation** Analysts' evaluation of company *(Business Week)* | 8 | Analysis, communication |
| 6.6 | **Real World: GAP** Exploring an annual report (Internet) | 8 | Communication, research, technology |

## DESCRIPTIONS OF PROBLEMS AND CRITICAL THINKING CASES

Below are brief descriptions of each problem and case. These descriptions are accompanied by the estimated time (in minutes) required for completion and by a difficulty rating. The time estimates assume use of the partially filled-in working papers.

### Problems (Sets A and B)

**6.1 A,B** **Claypool Hardware/Big Oak Lumber** **35 Medium**

Introduction to both perpetual inventory systems and financial statement analysis. After making journal entries for merchandising transactions, students are asked to compare the company's gross profit rate with the industry average and draw conclusions.

**6.2 A,B** **Hendry's Boutique/Harry's Haberdashery** **15 Easy**

Students prepare an income statement for a small retail store using information from an adjusted trial balance. Using this income statement, they are asked to compute the company's gross profit margin, evaluate customer satisfaction, interpret the meaning of several accounts, and identify the accounts in the store's operating cycle.

**6.3 A,B** **Knauss Supermarkets/Jill's Department Store** **20 Medium**

Illustrates performance evaluation of a merchandising company using changes in net sales, sales per square foot of selling space, and comparable store sales.

**6.4 A,B** **Lamprino Appliance/Mary's TV** **30 Medium**

A straightforward comparison of the net cost and gross invoice price methods of recording purchases of merchandise.

**6.5 A,B** **Siogo Shoes and Sole Mates/Hip Pants and Sleek** **30 Strong**

A comprehensive problem on merchandising transactions. Also asks students to evaluate whether it is worthwhile to take advantage of a 1/10, n/30 cash discount.

**6.6 A,B** **King Enterprises/Queen Enterprises** **45 Strong**

A problem that requires students to evaluate the effects of accounting errors on various balance sheet and income statement accounts and to prepare journal entries to correct the errors. The problem requires the errors to be corrected both assuming that the books remain open and assuming that the books have already been closed.

## Problems (continued)

| | | | |
|---|---|---|---|
| **6.7 A,B** | **Genuine Accessories/Computer Resources**<br>A problem that requires students to calculate gross profit under an accrual-based system and under a cash-based system, and to explain the difference between the two computations. Also, students are introduced to fair value accounting, and are required to prepare a journal entry to revalue inventory (for loan evaluation purposes) to fair value. | **30** | **Strong** |
| **6.8 A,B** | **CPI/SUI**<br>A comprehensive problem addressing every learning objective in the chapter. Closely parallels the *Demonstration Problem* . | **40** | **Strong** |

## Critical Thinking Cases

**6.1 Selecting an Inventory System** — **35 Medium**

Students are asked the type of inventory system they would *expect* to find in various types of business operations. Leads to an open-ended discussion of why different types of businesses maintain different types of inventory systems. A very practical assignment.

**6.2 A Cost-Benefit Analysis** — **25 Medium**

Using the company's markup policy, students are asked to determine the amount of shrinkage loss included in the cost of goods sold in a business using a *periodic* inventory system. Having determined the amount of loss, they then are asked to evaluate the economic benefit of hiring a security guard.

**6.3 Group Assignment - Evaluating an Inventory System** — **No time estimate**

Students are to visit two local businesses to gain an understanding of the inventory systems in use. They are then asked to evaluate those systems in terms of the information needs and resources of the businesses.

**6.4 Manipulating Income** — **20 Medium**

**Ethics, Fraud & Corporate Governance**

Students must react to a supervisor's request to alter financial records in order to improve the appearance of the company's financial performance.

**6.5 CVS Is Riding High for Now** — **15 Medium**

***Business Week***

Students are asked to discuss why prescription drug plans may reduce the gross margin of CVS, a giant drug store chain.

**6.6 Exploring the Annual Report of GAP, Inc.** — **25 Easy**

**Internet**

Visit the home page of Gap, Inc., and gather financial information to evaluate sales performance.

## SUGGESTED ANSWERS TO DISCUSSION QUESTIONS

1. The operating cycle of a business is the sequence of transactions by which the company normally generates its revenue and its cash receipts from customers. In a merchandising company, this cycle includes: (1) purchasing merchandise; (2) selling merchandise, often on account; and (3) collecting accounts receivable from customers.

2. Both wholesalers and retailers are merchandising companies and, therefore, buy their inventory in a ready-to-sell condition. Wholesalers, however, buy large quantities of merchandise directly from manufacturers and then sell this merchandise in smaller quantities to many different retailers. Wholesalers usually operate from a central location and do not sell directly to the final consumer. Retailers, in contrast, buy from wholesalers and then resell the merchandise to the final consumer.

   In summary, wholesalers emphasize distribution of the product to the places (retailers) where it is needed. Retailers specialize in meeting the needs of their local customers.

3. The *cost of goods sold* appears in the income statement of any business that sells merchandise, but not in the income statement of a business that sells only services. The cost of goods sold represents the original cost *to the seller* of the merchandise it sells.

4. Green Bay Company is *not necessarily* more profitable than New England Company. Profitability is measured by *net income,* not by gross profit. For a merchandising company (or manufacturer) to earn a *net income,* its gross profit must *exceed its expenses* (including nonoperating items). Green Bay's gross profit exceeds that of New England by $70,000. However, if Green Bay's operating expenses (and nonoperating items) exceed those of New England by more than $70,000, New England is the more profitable company.

5. Revenue from sales amounts to *$1,070,000* (gross profit, $432,000, plus cost of goods sold, $638,000). Net income is equal to *$42,000* (gross profit, $432,000, minus expenses, $390,000).

6. *General ledger* accounts show the *total* amounts of various assets, liabilities, revenue, and expenses. While these total amounts are used in financial statements, company personnel need more detailed information about the items *comprising* these totals. This detail is provided in *subsidiary ledgers.* Subsidiary ledgers are needed to show the amounts receivable from individual customers, the amounts owed to individual creditors, and the quantities and costs of the specific products in inventory.

7. *Inventory shrinkage* refers to the decrease (shrinkage) in inventory resulting from such factors as theft, breakage, and spoilage. In a company using a perpetual inventory system, shrinkage is measured and accounted for by taking a *physical inventory* and adjusting the accounting records to reflect the actual quantities on hand.

8. In a *perpetual inventory* system, ledger accounts for inventory and the cost of goods sold are kept perpetually up-to-date. The Inventory account is debited whenever goods are purchased. When sales occur, Cost of Goods Sold is debited and Inventory is credited for the cost of the merchandise sold. An inventory subsidiary ledger is maintained showing the cost and quantity of every type of product in the inventory.

8.cont In a *periodic inventory* system, up-to-date records are *not* maintained either for inventory or for the cost of goods sold. The beginning and ending inventory are determined by a physical count. Purchases are recorded in a Purchases account, and no entries are made to record the cost of individual sales transactions. Rather, the cost of goods sold is determined by a computation made at the end of the year (beginning inventory, plus purchases, minus ending inventory).

9. (a) $51,500; (b) $65,000; (c) $49,800; (d) $61,600.

10. The statement is correct. A perpetual inventory system requires an entry updating the inventory records *as each item of merchandise is sold.* In the days of manual accounting systems, only businesses that sold a small number of high-cost items could use a perpetual system. For example, perpetual inventory systems were used in auto dealerships and jewelry stores, but not in supermarkets.

    Today, point-of-sale terminals have made perpetual inventory systems available to almost every type of business. These terminals "read" identification codes attached to each item of merchandise; the computer then looks up both the sales price and the cost of the merchandise in computer-based files and records the sale instantly.

11. a. A *general journal* is capable of recording *any type* of business transaction. However, recording transactions in this type of journal is a relatively slow and cumbersome process. In addition, the person maintaining the journal must have sufficient background in accounting to correctly interpret all types of accounting transactions. Also, because the journal is used to record all types of transactions, it must remain in the accounting department, rather than being located "in the field" where a specific type of transaction occurs.

    b. A special journal is an accounting record or device that is designed for recording one specific type of transaction in a highly efficient manner. As the journal is used only in recording one type of transaction, the person maintaining the journal usually does *not* require an extensive background in accounting. Also, the journal may be located in the field where the transactions occur.

    Special journals are used to record transactions that occur frequently. A general journal is still used for recording unusual transactions that do not fit the format of any special journal.

12. A balance arises in the Purchase Discounts Lost account when the company *fails* to take advantage of an available cash discount and, therefore, pays *more* than the net cost of the merchandise.

    In most well-managed companies, management has a policy of taking all available cash discounts. Therefore, the balance in the Purchase Discounts Lost account represents a cost arising from failure to adhere to this policy. If this balance becomes significant, management will take corrective action to assure that the company does take advantage of future discount opportunities.

13. The freight charges should *not* be charged to delivery expense. Delivery expense is a selling expense, matched with (offset against) the sales revenue of the current period. Freight charges on inbound shipments are part of the cost of acquiring the inventory, not an expense of the current period. Transportation charges on inbound shipments should be added to the cost of the purchased merchandise or, as a matter of practical convenience, included in the cost of goods sold during the period.

14. Yes; Outback should take advantage of 4/10, n/60 cash discounts even if it must borrow the money to do so at an annual rate of 13%. Paying 50 days earlier and taking the discount saves 4%.

    This is equivalent to an investment with a rate of return of approximately 29% ($4\% \times 365/50 = 29.2\%$).

15. The financial statements would not include sales tax expense because sales taxes are not an expense of the business entity. Rather, these taxes are collected from the customer and forwarded by the business to the state government. Until the taxes have been sent to the governmental authorities, a liability for sales taxes payable does appear in the balance sheet of the business. (The entry to record the collection of sales taxes consists of a debit to Cash or Accounts Receivable and a credit to Sales Taxes Payable.)

16. To sellers, the "cost" of offering cash discounts is the resulting reduction in revenue. This cost is measured by initially recording the account receivable from the customer at the *full invoice price* and then recording any discounts taken by customers in a separate account (Sales Discounts).

    Buyers, however, incur a cost when discounts are *lost,* not when they are taken. Therefore, buyers design their accounting systems to measure any discounts lost. This is accomplished by initially recording the account payable to the supplier at net cost—that is, net of any allowable cash discounts. This practice means that any discounts lost must be recorded in a separate expense account.

17. The increase in net sales is a good sign, but it does not necessarily mean the company's marketing strategies have been successful. This increase might have stemmed entirely from the opening of new stores, or from inflation. Also, an increase in net sales does not mean that gross profit has increased. Perhaps this increase in sales stemmed from selling more low-margin merchandise, in which case, gross profit might even have declined. In that case this would have been an *unsuccessful* marketing strategy.

    An increase in net sales normally is viewed as a positive change. But to evaluate a specific company's performance, it is necessary to determine the *reasons* for this change, and the overall financial impact.

18. *Gross profit margin,* also called *gross profit rate,* is gross profit expressed as a percentage of net sales revenue. It may be computed for the company as a whole (the overall gross profit margin), for specific sales departments, and for individual products. Management often may improve the company's overall profit margin by raising sales prices or by concentrating sales efforts on products with higher margins. In a manufacturing company, management often is able to increase margins by reducing the cost of manufacturing the merchandise that the company sells.

19. Even companies that use a perpetual inventory system will generally complete a physical count of their merchandise inventory at least once a year to compare their actual physical inventory with what the perpetual inventory records indicate should be on hand. There are typically differences between the physical count of inventory and what the perpetual records indicate due to breakage, spoilage, and employee and customer theft. This difference is referred to as "shrink(age)" in the retail industry - one of the truly great euphemisms of all time -and is a closely watched performance metric by management in the retail industry.

20. An inventory subsidiary ledger is maintained under a perpetual inventory system but not under a periodic inventory system. Under a perpetual inventory system, each purchase and sale of individual inventory items is tracked. Under a periodic inventory system, the actual physical quantity of inventory items on hand is only determined at the time that a physical inventory count is taken, typically once a year.

# SOLUTIONS TO BRIEF EXERCISES

**B. Ex 6.1** **Office Today's gross profit is $160 million ($800 million - $640 million). Its gross profit percentage is 20% ($160 million/$800 million). Office Today's gross profit should provide the company with the ability to cover other expenses and to provide a return to its shareholders.**

**B. Ex. 6.2** **The accounts receivable balance in the general ledger should be $850, the total of the customer accounts with debit balances. The two customer accounts with credit balances would be reclassified as accounts payable.**

**B. Ex. 6.3** **Alberto & Sons' gross profit for October is $1,500, the $30 gross profit on each item ($80 selling price - $50 cost) multiplied by the 50 units sold during October.**

**B. Ex. 6.4** **The balance in Neel & Neal's inventory account at February 1st would be $300,000, the same balance as of the beginning of the year. Under a periodic inventory system, the inventory account balance on the balance sheet is only updated when a physical inventory count is taken, which generally only occurs on a yearly basis. Please note that the inventory balance cannot be computed by adding the $250,000 of inventory purchases to the beginning inventory balance, and then subtracting the $400,000 in sales. The inventory account balance is generally stated at the cost of the inventory items purchased, whereas the $400,000 of sales is recorded at the retail price at which the goods are sold.**

**B. Ex. 6.5** **The cost of goods sold for Murphy Co. is $650,000. Add the purchases of $600,000 to the beginning inventory of $300,000, and then subtract the $250,000 of ending inventory.**

**B. Ex 6.6** **Yang & Min Inc. purchased $600,000 of goods during the year. Since Yang & Min had an ending inventory of $200,000 and cost of goods sold of $500,000, we then know that Yang & Min had goods available for sale of $700,000 (all goods available for sale are either sold - cost of goods sold - or are still held at the end of the year - inventory). Goods available for sale either existed at the beginning of the year - beginning inventory - or were purchased during the year - purchases. Since Yang & Min's goods available for sale are $700,000 and its beginning inventory is $100,000 Yang & Min must have purchased $600,000 of goods during the year.**

| | | | |
|---|---|---|---|
| **B. Ex 6.7** | **Cost of Goods Sold……** | **330,000** | |
| | **Inventory (beginning balance)……** | | **80,000** |
| | **Purchases…….** | | **250,000** |
| | **To close the accounts contributing to the cost of goods sold for the year.** | | |
| | **Inventory (ending balance)……..** | **30,000** | |
| | **Cost of Goods Sold……..** | | **30,000** |
| | **To reduce the balance of the Cost of Goods Sold account by the cost of merchandise still on hand at year-end.** | | |
| | **Income Summary……..** | **300,000** | |
| | **Cost of Goods Sold……..** | | **300,000** |
| | **To close the Cost of Goods Sold account to Income Summary.** | | |

**B. Ex. 6.8** **Pag Inc.'s equivalent annual rate of return by always paying its bills within the discount period, and thereby receiving a 1% cash discount on the amount of its purchases, is 18.25% (1% x 365/20).**

| | | | |
|---|---|---|---|
| **B. Ex. 6.9** | **Sales Returns and Allowances** | **2,000** | |
| | **Accounts Receivable (or Cash)……..** | | **2,000** |
| | **Allowance granted for defective merchandise.** | | |

**B. Ex 6.10** **Examples of special journals include: sales journal, cash receipts journal, cash payments journal, purchases journal, and payroll journal.**

**B. Ex 6.11** **The customer return was received before year end and as such needs to be recorded in the period in which it occurred. Your cooperation with the controller's scheme to overstate income will expose you to severe civil and criminal penalties, notwithstanding the potential damage to your reputation and the unethical course of action that the controller is asking you to pursue. You should try to convince the controller of these facts. Failing this, you might avail yourself of the "hotline" that all public companies are required to maintain to provide an anonymous mechanism for employees to report concerns about improper accounting practices. If all else fails, you are better off leaving the company than exposing yourself to the harsh sanctions associated with securities fraud.**

# SOLUTIONS TO EXERCISES

**Ex 6.1** **a. Option #2 enables the band to have the least possible amount of cash invested in inventory at any given time throughout the basketball season. Option #3 enables the band to convert sales into cash immediately as shirts are sold. Thus, a combination of options #2 and #3 will result in the shortest operating cycle.**

**b. Option #1 results in the band having an excessive amount invested in inventory early in the season. Option #4 requires that the band wait until the end of the season to collect its account receivable from the bookstore. Thus, a combination of options #1 and #4 will result in the longest operating cycle.**

**c. Option #1**
***Advantages*** **: A 5% purchase discount applies to the purchase.**
***Disadvantages*** **: A large amount of cash is invested in inventory early in the season. The band must pay in advance for an entire season of inventory. Ordering inventory for an entire season exposes the band to a high risk of purchasing too many or too few T-shirts.**

**Option #2**
***Advantages*** **: T-shirts are ordered only when inventory levels become depleted. Smaller amounts of cash are invested in inventory throughout the season. Ordering shirts as needed reduces the risk of purchasing too many or too few.**
***Disadvantages*** **: A 5% purchase discount does not apply.**

**Option #3**
***Advantages*** **: Cash is collected immediately. Members of the band become an entire "sales force" promoting interest in the product. The band receives 100% of all sales proceeds.**
***Disadvantages*** **: Maintaining control over cash receipts and inventory is potentially more complex.**

**Option #4**
***Advantages*** **: Control over cash receipts and inventory is maintained by the bookstore. The bookstore is a high traffic area that caters to students, alumni, and visitors.**

***Disadvantages*** **: The bookstore earns a 6% sales commission, meaning the band receives only 94% of the total proceeds. The band must wait the entire year before the bookstore settles its account. Thus, the band may experience difficulty in paying for the inventory it purchases.**

**Ex 6.2**

| Trans-action | Income Statement: Net Sales | - | Cost of Goods Sold | - | All Other Expenses | = | Net Income | Balance Sheet: Assets | = | Liabilities | + | Owners' Equity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a. | NE | | NE | | NE | | NE | I | | I | | NE |
| b. | I | | NE | | NE | | I | I | | NE | | I |
| c. | NE | | I | | NE | | D | D | | NE | | D |
| d. | NE | | NE | | NE | | NE | NE | | NE | | NE |
| e. | NE | | I | | NE | | D | D | | NE | | D |

**Ex 6.3**

**a.**

**Step 1**

| | | |
|---|---|---|
| Net sales | $ | 1,200,000,000 |
| Multiplied by the gross profit margin | x | 11% |
| Equals gross profit | $ | 132,000,000 |

**Step 2**

| | | |
|---|---|---|
| Net sales | $ | 1,200,000,000 |
| Less: cost of goods sold | | ? |
| Equals gross profit (see Step 1) | $ | 132,000,000 |

**Step 3**

| | | |
|---|---|---|
| Cost of goods sold ($1.2 billion - $132 million) | $ | 1,068,000,000 |

**b.**

**Step 1**

| | | |
|---|---|---|
| Merchandise inventory (beginning of the year) | $ | 69,000,000 |
| Add: Purchases | | ? |
| Less: Merchandise inventory (end of the year) | | 57,000,000 |
| Equals cost of goods sold (see part a) | $ | 1,068,000,000 |

**Step 2**

| | | |
|---|---|---|
| Purchases ($1,068 billion + $57 million - $69 million) | $ | 1,056,000,000 |

**c.** The company's low gross profit margin of 11% reflects the intense levels of price competition in the personal computing industry. In order to stay competitive, computer retailers like PC Connection have significantly reduced selling prices to their customers. With gross profit being only eleven cents of every sales dollar, it is essential that these retailers control other expenses (such advertising expense, wages expense, and insurance expense) in order to remain profitable.

**d.** PC Connection uses a perpetual inventory system for several reasons: (1) its inventory has a relatively high unit cost, (2) its sales volume is extremely high, as evidenced by its $1.2 billion in net sales, (3) immediate information about the availability of specific products is required when customers contact the company to place orders, and (4) the benefits derived from using a perpetual system outweigh the cost of implementing and maintaining it.

**Ex. 6.4**

**a.**

| Net sales | - | Cost of goods sold | = | Gross profit |
|---|---|---|---|---|
| $ 26,000,000 | | ? | | $ 15,000,000 |

**Cost of goods sold = $11,000,000**

**b.**

| Beginning inventory | + | Purchases | - | Cost of goods sold | = | Ending Inventory |
|---|---|---|---|---|---|---|
| $ 6,450,000 | | $ 9,500,000 | | $11,000,000 (from part a) | | $ 4,950,000 |

**c.** **The entry to record inventory shrinkage at the end of the year increased the Cost of Goods Sold account and reduced its Merchandise Inventory account by $10,000. Thus, immediately prior to recording inventory shrinkage, the Cost of Goods Sold account had a debit balance of $10,990,000 ($11,000,000 computed in part *a* minus $10,000), whereas the Merchandise Inventory account had a debit balance of $4,960,000 ($4,950,000 computed in part *b* plus $10,000).**

**Ex. 6.5** **a. The change in net sales provides an overall measure of the effectiveness of the company in generating revenue. A major limitation of this measure is that sales may have changed largely because of the opening of new stores or the closing of unprofitable ones. Thus, an increase in net sales is not always "good," and a decrease is not always "bad."**

**Users of financial statements often compute changes in gross profit rates from one period to the next. Increasing margins often mean that a company's net sales growth is outpacing its growth in the cost of goods sold. This often is the result of successful marketing strategies. A declining gross profit rate, on the other hand, may indicate weakening customer demand or intensified price competition.**

**Percentage changes in comparable store sales represent the increase or decrease in net sales of the same stores from one period to the next. By factoring out the effects of opening new stores (and/or closing existing stores), this statistic provides a better measure of marketing strategy effectiveness and revenue growth.**

**b. Wal-Mart reported a significant increase in its overall sales growth of 14%, but only a 3% increase in comparable store sales. The disparity between these two statistics may suggest that Wal-Mart's revenue growth was in large part attributed to new stores. The stability of Wal-Mart's gross profit rate implies that the company did not face weakening demand or intensified price competition. Kmart's performance was far less impressive. The statistics reported in the text were released subsequent to the company declaring bankruptcy. Kmart's total sales grew by only 3%, and its comparable store sales decreased by 0.1%. The 10% decline in the company's gross profit rate suggests that it faced weakening demand and increased price competition.**

**Ex. 6.6** **a. The reason why an actual physical count is likely to indicate a smaller inventory than does the perpetual inventory records is *inventory shrinkage* —the normal loss of inventory through theft, breakage, and spoilage.**

**b.**

| | | |
|---|---|---|
| **Cost of Goods Sold** | **4,000** | |
| **Inventory** | | **4,000** |

**To reduce inventory to the quantities reflected in the year-end physical count.**

**c. Both portions of the preceding entry should be posted to the general ledger. In addition, the reduction in inventory should be posted to the inventory subsidiary ledger accounts in which the shortages were determined to exist.**

**Ex. 6.7** **a. The amounts of beginning and ending inventory were determined by taking complete physical inventories at (or near) the ends of year 1 and year 2. "Taking a complete physical inventory" means physically counting the number of units of each product on hand and then determining the cost of this inventory by reference to per-unit purchase costs. (The inventory at the end of year 1 serves as the "beginning inventory" for year 2.)**

**b. Computation of the cost of goods sold during year 2:**

| | |
|---|---|
| Inventory (December 31, year 1) | $ 2,800 |
| Add: Purchases | 30,200 |
| Cost of goods available for sale during year 2 | 33,000 |
| Less: Inventory (December 31, year 2) | 3,000 |
| Cost of goods sold | $ 30,000 |

**c. Year 2**

| | | | | |
|---|---|---|---|---|
| Dec. | 31 | Cost of Goods Sold | 33,000 | |
| | | Inventory (Dec. 31, year 1) | | 2,800 |
| | | Purchases | | 30,200 |
| | | To close those temporary accounts that contribute to the cost of goods sold for the year. | | |
| | 31 | Inventory (Dec. 31, year 2) | 3,000 | |
| | | Cost of Goods Sold | | 3,000 |
| | | To remove from the Cost of Goods Sold account the cost of merchandise still on hand at year-end. | | |

**d.**

**BOSTON BAIT SHOP**
**Partial Income Statement**
**For the Year Ended December 31, Year 2**

| | |
|---|---|
| Net sales | $ 79,600 |
| Less: Cost of goods sold | 30,000 |
| Gross profit | $ 49,600 |

**e. Because the business is small, management probably has decided that the benefits of maintaining a perpetual inventory system are not worth the cost. Furthermore, determining a cost of goods sold figure at the point of sale for live bait (e.g., a dozen minnows) may be difficult, if not impossible.**

**Ex. 6.8**

| | Net Sales | Beginning Inventory | Net Purchases | Ending Inventory | Cost of Goods Sold | Gross Profit | Expenses | Net Income or (Loss) |
|---|---|---|---|---|---|---|---|---|
| a. | 240,000 | 76,000 | 104,000 | 35,200 | 144,800 | 95,200 | 72,000 | 23,200 |
| b. | 480,000 | 72,000 | 272,000 | 80,000 | 264,000 | 216,000 | 196,000 | 20,000 |
| c. | 630,000 | 207,000 | 400,500 | 166,500 | 441,000 | 189,000 | 148,500 | 40,500 |
| d. | 810,000 | 261,000 | 450,000 | 135,000 | 576,000 | 234,000 | 270,000 | (36,000) |
| e. | 531,000 | 156,000 | 393,000 | 153,000 | 396,000 | 135,000 | 150,000 | (15,000) |

**Ex. 6.9** **a. It is not uncommon for companies in the same industry to report similar gross profit percentages. This is especially true of large supermarket retailers. This particular industry is extremely competitive with respect to pricing strategies. Furthermore, each retailer sells identical items of inventory acquired from the same manufacturers at competitive purchase prices (e.g., Green Giant Foods, General Mills, Procter & Gamble, etc.).**

**b. Supermarket chains account for millions of fast selling items, valued in billions of dollars, that are stocked at thousands of geographically disbursed locations. Advances in technology have made it possible for even these retailers to account for their inventories using perpetual inventory systems. Specific examples of these technologies include point-of-sale terminals (scanners), computerized distribution centers, and integrated computer networking with major suppliers.**

**Ex. 6.10** **a. Entries in the accounts of Golf World:**

| | | |
|---|---|---|
| **Accounts Receivable (Mulligans) ……** | **10,000** | |
| **Sales ……** | | **10,000** |
| **Sold merchandise on account to Mulligans.** | | |
| | | |
| **Cost of Goods Sold ……** | **6,500** | |
| **Inventory ……** | | **6,500** |
| **To recognize cost of goods sold relating to sale to Mulligans.** | | |
| | | |
| **Cash ……** | **9,900** | |
| **Sales Discounts ……** | **100** | |
| **Accounts Receivable (Mulligans) ……** | | **10,000** |
| **To record collection of account receivable from Mulligans, less 1% cash discount.** | | |

**b. Entries in the accounts of Mulligans:**

| | | |
|---|---|---|
| **Inventory ……** | **9,900** | |
| **Accounts Payable (Golf World) ……** | | **9,900** |
| **Purchased merchandise from Golf World (net cost, $10,000 × 99% = $9,900).** | | |
| | | |
| **Accounts Payable (Golf World) ……** | **9,900** | |
| **Cash ……** | | **9,900** |
| **Paid account payable to Golf World within the discount period.** | | |

**c. Entry by Mulligans if discount not taken:**

| | | |
|---|---|---|
| **Accounts Payable (Golf World) ……** | **9,900** | |
| **Purchase Discounts Lost ……** | **100** | |
| **Cash ……** | | **10,000** |
| **To record payment of account payable to Golf World and loss of purchase discount due to failure to pay within discount period.** | | |

**Ex. 6.11 a. Dollar figures are stated in billions except for sales per square foot of selling space:**

| | Walgreen Company | Rite Aid Corporation |
|---|---|---|
| Net sales | $53.7 | $17.5 |
| Cost of goods sold | $38.4 (2) | $12.80 |
| Gross profit | $15.3 (1) | $4.7 (4) |
| Gross profit margin (rate) | 28.4% | 26.9% (5) |
| Sales per square foot of selling space | $811.2 (3) | $476.8 (6) |

**Computations:**

**(1) $53.7 * .284 = $15.3**
**(2) $53.7 - $15.3 = $38.4**
**(3) $53,700 / 66.2 = $811.2**
**(4) $17.5 - $12.8 = $4.7**
**(5) $4.7 / $17.5 = 26.9%**
**(6) $17,500 / 36.7 = $476.8**

**b. Walgreen is much more profitable than Rite Aid, in both absolute and relative terms. Walgreen's net income is $2.0 billion (3.8% of net sales) whereas Rite Aid's net income is only $27 million (0.15% of net sales). Walgreen's has a higher gross profit percentage (28.4% as compared to 26.9%) and, since it is larger than Rite Aid, its gross profit in dollars is much larger than Rite Aid's. A large gross profit better enables Walgreen's to absorb the other expenses of running the business, and many of these expenses may be similar between Walgreen and Rite Aid.**

**Ex. 6.12** **a.**

| | | |
|---|---|---|
| **Cash** | **117,000** | |
| **Sales** | | **117,000** |
| **To record sale of telescope to Central State University for cash.** | | |
| | | |
| **Cost of Goods Sold** | **90,000** | |
| **Inventory** | | **90,000** |
| **To record cost of telescope sold to Central State University.** | | |
| | | |
| **Inventory** | **50,000** | |
| **Accounts Payable (Lunar Optics)** | | **50,000** |
| **To record purchase of merchandise on account from Lunar Optics, net 30 days.** | | |

**b. Computation of inventory at January 7:**

| | |
|---|---|
| **Inventory at Dec. 31** | **250,000** |
| **Deduct: Cost of goods sold** | **(90,000)** |
| **Add: Cost of merchandise purchased** | **50,000** |
| **Inventory at Jan. 7** | **210,000** |

| | | |
|---|---|---|
| **c. Cash** | **117,000** | |
| **Sales** | | **117,000** |
| **To record sale of telescope to Central State University for cash.** | | |
| | | |
| **Purchases** | **50,000** | |
| **Accounts Payable (Lunar Optics)** | | **50,000** |
| **To record purchase of merchandise on account from Lunar Optics. Terms, net 30 days.** | | |

**d. Cost of goods sold:**

| | |
|---|---|
| **Inventory, Jan. 1** | **$ 250,000** |
| **Purchases** | **50,000** |
| **Cost of goods available for sale** | **$ 300,000** |
| **Less: Inventory, Jan. 7 (per part *b*)** | **210,000** |
| **Cost of goods sold** | **$ 90,000** |

**e. The company would probably use a perpetual inventory system because it sells merchandise with a high unit cost and has a relatively small number of sales transactions.**

**Ex. 6.13**

**a.** **Computation of the cost of goods sold:**

| | |
|---|---|
| **Beginning inventory ……** | **$6,240** |
| **Add: Purchases ……** | **74,400** |
| **Cost of goods available for sale ……** | **$80,640** |
| **Less: Ending inventory ……** | **4,560** |
| **Cost of goods sold ……** | **$76,080** |

**b.**

**Mountain Mabel's appears to be a very small business that probably has no external reporting obligations (other than in the owners' annual income tax return). Also, "management" seems to consist of the owners, who may be in the store every day and therefore do not need an inventory ledger to know what merchandise is in inventory. In a situation such as this, the additional recordkeeping required to maintain a perpetual inventory system simply may not be worthwhile.**

**c.** **A larger business, such as a Sears store, needs to have up-to-date information as to the cost and quantity of merchandise in inventory and also the cost of goods sold. This information is used in quarterly reports to stockholders, reports to corporate management, and monthly reports measuring the profitability of the individual sales departments. In addition, information about the quantities of specific products sold and the quantities currently on hand is needed for such daily decisions as: (1) when to reorder specific products, (2) how much merchandise to order, and (3) which products to advertise in special sales.**

**Also, a store such as Sears uses *point-of-sale* terminals to simplify the processing of sales transactions. These terminals permit the maintenance of perpetual inventory records at very little cost and with no special effort required of accounting personnel.**

**Ex. 6.14**

| | |
|---|---|
| **Revenues (4 x $1,200)……..** | **$ 4,800** |
| **Cost of goods sold (4 x $800)……..** | **3,200** |
| **Other expenses…….** | **1,000** |
| **Net income (accrual basis)……** | **$ 600** |
| **Cash revenues (4 x $1,200)……** | **$ 4,800** |
| **Cash expenses (20 x $800)……..** | **16,000** |
| **Other cash expenses……** | **1,000** |
| **Net loss (cash basis)…….** | **($12,200)** |

**The difference between the accrual-basis net income of $600 and the cash-basis net loss of $12,200 is explained by the $12,800 (16 units x $800) of unsold inventory still held by SCTS. Under a cash-basis system, the purchase of merchandise is charged to expense at the time the merchandise is purchased. Conversely, under accrual accounting, the purchase of goods to be held for sale is recorded as an asset, inventory, at the time of purchase and is not charged to expense, cost of goods sold, until the inventory is sold. If a business is building its inventory balance, net income is often higher than cash flow from operations (similar to computing income under a cash-basis system).**

**Ex. 6.15**

**a. All of the following figures are shown in million's (except percentages):**

| | Year Ended | | |
|---|---|---|---|
| | **Feb. 3 2008** | **Jan. 28 2007** | **Jan. 29 2006** |
| **(1) Net sales** | **$77,349** | **$79,022** | **$77,019** |
| **(2) Gross profit (margin)** | **25,997** | **26,546** | **25,938** |
| **Gross profit percentage (2) ÷ (1)** | **33.6%** | **33.6%** | **33.7%** |

**b. Home Depot's gross profit percentage has been essentially unchanged over the past three years. Although management wants to improve the gross margin, Home Depot faces a serious competitor in Lowe's, likely constraining its ability to raise margins.**

35 Minutes, Medium

# SOLUTIONS TO PROBLEMS SET A
# PROBLEM 6.1A
# CLAYPOOL HARDWARE

**a.**

**General Journal**

| | | | | |
|---|---|---|---|---|
| | | (1) | | |
| Nov. | 5 | Accounts receivable (Bemidji Construction) | 13,390 | |
| | | Sales | | 13,390 |
| | | Sold merchandise on account. | | |
| | | | | |
| | 5 | Cost of Good Sold | 9,105 | |
| | | Inventory | | 9,105 |
| | | To record the cost of goods sold relating to the | | |
| | | sales of merchandise to Bemidji Construction. | | |
| | | | | |
| | 9 | Inventory | 3,800 | |
| | | Accounts Payable (Owatonna Tool Co.) | | 3,800 |
| | | Purchased merchandise on credit. | | |
| | | | | |
| Dec. | 5 | Cash | 13,390 | |
| | | Accounts Receivable (Bemidji Construction) | | 13,390 |
| | | Collected accounts receivable. | | |
| | | | | |
| | 9 | Accounts Payable (Owatonna Tool. Co.) | 3,800 | |
| | | Cash | | 3,800 |
| | | Paid account payable to supplier. | | |
| | | | | |
| | 31 | Cost of Goods Sold | 1,710 | |
| | | Inventory | | 1,710 |
| | | To adjust inventory records to reflect the results | | |
| | | of the year-end physical count. | | |
| | | Inventory per accounting records | $ 183,790 | |
| | | Inventory per physical count | 182,080 | |
| | | Adjustment for inventory shrinkage | $ 1,710 | |
| | | | | |
| | | | | |
| | | | | |

**b.**

**CLAYPOOL HARDWARE**
**Partial Income Statement**
**For the Year Ended December 31, 20__**

| | | | | |
|---|---|---|---|---|
| | | Net sales | | $ 1,024,900 |
| | | Cost of goods sold (1) | | 696,932 |
| | | Gross profit | | $ 327,968 |
| | | | | |
| | | (1) Cost of goods sold prior to adjustment at Dec. 31 | | $ 695,222 |
| | | Add: Shrinkage adjustment at Dec. 31 | | 1,710 |
| | | Cost of goods sold (adjusted balance) | | $ 696,932 |
| | | | | |

**c. Claypool seems quite able to pass its extra transportation costs on to its customers and, in fact, enjoys a significant financial benefit from its remote location. The following data support these conclusions:**

| | Claypool Hardware | Industry Average | Difference |
|---|---|---|---|
| **Annual sales ……..** | **$1,024,900** | **$1,000,000** | **$24,900** |
| **Gross profit ……** | **327,968** | **250,000 (1)** | **77,968** |
| **Gross profit rate ……** | **32% (2)** | **25%** | **7%** |

**(1) $1,000,000 sales × 25% = $250,000**
**(2) $327,968 gross profit ÷ $1,024,900 net sales = 32%**

**Claypool earned a gross profit rate of 32%, which is significantly higher than the industry average. Claypool's sales were above the industry average, and it earned $77,968 more gross profit than the "average" store of its size. This higher gross profit was earned even though its cost of goods sold was $18,000 to $20,000 higher than the industry average because of the additional transportation charges.**

**To have a higher-than-average cost of goods sold and still earn a much larger-than-average amount of gross profit, Claypool must be able to charge substantially higher sales prices than most hardware stores. Presumably, the company could not charge such prices in a highly competitive environment. Thus, the remote location appears to insulate it from competition and allow it to operate more profitably than hardware stores with nearby competitors.**

15 Minutes, Easy

# PROBLEM 6.2A
# HENDRY'S BOUTIQUE

**a.**

| HENDRY'S BOUTIQUE | | | |
|---|---|---|---|
| Income Statement | | | |
| For the Year Ended December 31, 2009 | | | |
| | Sales | | $ 226,000 |
| | Less: Sales returns and allowances | | 2,500 |
| | Net sales | | 223,500 |
| | Cost of goods sold | | 100,575 |
| | Gross profit | | 122,925 |
| | Other expenses: | | |
| | Purchase discounts lost | $ 250 | |
| | Utilities expense | 4,120 | |
| | Office supply expense | 520 | |
| | Depreciation expense: office equipment | 2,750 | |
| | Rent expense | 6,100 | |
| | Insurance expense | 900 | |
| | Salaries expense | 88,095 | 102,735 |
| | Income before income taxes expense | | 20,190 |
| | Income tax expense | | 8,190 |
| | Net income | | $ 12,000 |
| | | | |
| | | | |

**b.** **Gross profit ÷ Net sales = gross profit margin**

**Using the figures from the income statement prepared in part a, the store's gross profit margin is computed as follows: $122,925 ÷ $223,500 = <u>55%</u>**

**c.** **Sales returns and allowances amount to only 1.1% of the store's total sales. Thus, it appears that customers are relatively satisfied with their purchases.**

**d.** **The use of the Purchase Discounts Lost account indicates that the store records purchases *net* of any purchase discounts. Had the store recorded purchases at their *gross* invoice amounts, this account would not be used, and Purchase Discounts Taken would have appeared in the adjusted trial balance instead.**

**e.** **The $3,200 of sales taxes payable appearing in the adjusted trial balance represents sales taxes *collected* by the store for the sales taxes imposed on its *customers.* When the store submits this amount to the proper tax authorities, the liability will be removed. Sales taxes are applicable only when merchandise is sold to the *final customer;* thus, retail stores normally incur no sales taxes expense.**

**f.** **Cash, Accounts Receivable, and Merchandise Inventory are the accounts that comprise the store's operating cycle.**

**20 Minutes, Medium**

# PROBLEM 6.3A
# KNAUSS SUPERMARKETS

| | | | 2008-2009 | 2007-2008 |
|---|---|---|---|---|
| **a.** | **1.** | **Change in net sales …….** | **6% (1)** | **8% (2)** |
| | **2.** | **Change in net sales per square foot ….** | **(1.1%) (3)** | **(2.7%) (4)** |
| | **3.** | **Change in comparable store sales ……** | **(1.8%) (5)** | **(3.5%) (6)** |

**(1) ($5,495 – $5,184) ÷ $5,184 = 6%**
**(2) ($5,184 – $4,800) ÷ $4,800 = 8%**
**(3) [($5,495 ÷ 11.9) – ($5,184 ÷ 11.1)] ÷ ($5,184 ÷ 11.1) = (1.1%)**
**(4) [($5,184 ÷ 11.1) – ($4,800 ÷ 10.0)] ÷ ($4,800 ÷ 10.0) = (2.7%)**
**(5) ($10.8 – $11.0) ÷ $11.0 = (1.8%)**
**(6) ($11.0 – $11.4) ÷ $11.4 = (3.5%)**

**b.** **While Knauss has increased its overall revenue from sales, several of the statistics indicate problems. Both sales per square foot of selling space and comparable store sales have declined for the last two years. This indicates a downward trend in sales at existing stores. It is apparent that the increase in overall net sales must have resulted from adding new stores. As a result, management should reevaluate its marketing strategies.**

30 Minutes Medium

# PROBLEM 6.4A
# LAMPRINO APPLIANCE

| | | | | |
|---|---|---|---|---|
| a. | | | | |
| | | General Journal | | |
| Date | | | | |
| (1) | | | | |
| June | 10 | Inventory | 2,940 | |
| | | Accounts Payable (Mitsu Industries) | | 2,940 |
| | | To record purchase of 10 TVs at net cost of $294 | | |
| | | per unit ($300, less 2%). | | |
| | | | | |
| | 15 | Cash | 450 | |
| | | Sales | | 450 |
| | | Sold 1 Mitsu TV for cash. | | |
| | | | | |
| | 15 | Cost of Goods Sold | 294 | |
| | | Inventory | | 294 |
| | | To record cost of TV sold. | | |
| | | | | |
| | 20 | Accounts Payable (Mitsu Industries) | 2,940 | |
| | | Cash | | 2,940 |
| | | Paid account within discount period. | | |
| (2) | | | | |
| June | 10 | Inventory | 3,000 | |
| | | Accounts Payable (Mitsu Industries) | | 3,000 |
| | | To record purchase of 10 TVs at gross invoice | | |
| | | price ($300 per unit). | | |
| | | | | |
| | 15 | Cash | 450 | |
| | | Sales | | 450 |
| | | Sold 1 Mitsu TV for cash. | | |
| | | | | |
| | 15 | Cost of Goods Sold | 300 | |
| | | Inventory | | 300 |
| | | To record cost of TV sold. | | |
| | | | | |
| | 20 | Accounts Payable (Mitsu Industries) | 3,000 | |
| | | Cash | | 2,940 |
| | | Purchase Discounts Taken | | 60 |
| | | Paid account payable, less 2% | | |
| b. | | | | |
| (1) | | | | |
| July | 10 | Accounts Payable (Mitsu Industries) | 2,940 | |
| | | Purchase Discounts Lost | 60 | |
| | | Cash | | 3,000 |
| | | Made payment after discount period had expired. | | |
| (2) | | | | |
| July | 10 | Accounts Payable (Mitsu Industries) | 3,000 | |
| | | Cash | | 3,000 |
| | | Made payment after discount period had expired. | | |
| | | | | |

**c.** **The *net cost* method provides more useful information for evaluating the company's efficiency in paying its bills. This method clearly indicates the lowest price that the company may pay, and separately records any additional costs incurred as *purchase discounts lost* .**

**Under the gross method, the liability is *not* recorded at the lowest price at which it can be settled. Hence, management is *not made aware* of available discounts that were not taken.**

30 Minutes, Strong

# PROBLEM 6.5A
# SIOGO SHOES AND SOLE MATES

| | | | | |
|---|---|---|---|---|
| | | General Journal | | |
| a. | | Journal entries by Siogo Shoes: | | |
| | | | | |
| Feb . | 9 | Accounts Receivable (Sole Mates) | 10,000 | |
| | | Sales | | 10,000 |
| | | Sold merchandise on account; terms, 1/10, n/30. | | |
| | | | | |
| | 9 | Cost of Goods Sold | 6,000 | |
| | | Inventory | | 6,000 |
| | | To record cost of merchandise sold (100 pr. X $60/pr.) | | |
| | | | | |
| | 12 | Delivery Expense | 40 | |
| | | Cash | | 40 |
| | | Paid delivery charges on outbound shipment. | | |
| | | | | |
| | 13 | Sales Returns & Allowances | 1,000 | |
| | | Accounts Receivable (Sole Mates) | | 1,000 |
| | | Customer returned merchandise (10 pr. X $100/pr.). | | |
| | | | | |
| | 13 | Inventory | 600 | |
| | | Cost of Goods sold | | 600 |
| | | Reduce cost of goods sold for cost of merchandise | | |
| | | returned (10 pr. X $60/pr.). | | |
| | | | | |
| | 19 | Cash | 8,910 | |
| | | Sales Discount | 90 | |
| | | Accounts Receivable (Sole Mates) | | 9,000 |
| | | Collected amount due, less $1,000 return and less | | |
| | | 1% cash discount on remaining $9,000 balance. | | |
| | | | | |
| b. | | Journal entries by Sole Mates: | | |
| | | | | |
| Feb. | 9 | Inventory | 9,900 | |
| | | Accounts Payable (Siogo Shoes) | | 9,900 |
| | | Purchased 100 pairs of boots; terms. 1/10, n/30. Net | | |
| | | cost, $99 per pair ($100, less 1%) | | |
| | | | | |
| | 12 | Transportation-in | 40 | |
| | | Cash | | 40 |
| | | Paid transportation charge on inbound shipment. | | |
| | | | | |
| | 13 | Accounts Payable (Siogo Shoes) | 990 | |
| | | Inventory | | 990 |
| | | Returned 10 pairs of boots to supplier. (Net cost, | | |
| | | $99 per pair x 10 pairs = $990. | | |
| | | | | |

# PROBLEM 6.5A
# SIOGO SHOES AND SOLE MATES (concluded)

| General Journal | | | | |
|---|---|---|---|---|
| Feb . | 19 | Accounts Payable (Siogo Shoes) | 8,910 | |
| | | Cash | | 8,910 |
| | | Paid within discount period balance owed to | | |
| | | Siogo Shoes ($9,900 - $990 = $8,910). | | |
| | | | | |
| | | | | |
| | | | | |

**c.** **Yes. Sole Mates *should* take advantage of 1/10, n/30 purchase discounts, even if it must borrow money for a short period of time at an annual rate of 11%. By taking advantage of the discount, the company saves 1% by making payment 20 days early. At an interest rate of 11% per year, the bank charges only *0.6%* interest over a 20-day period (11% × 20/365 = 0.6%). Thus, the cost of passing up the discount is greater than the cost of short-term borrowing.**

# PROBLEM 6.6A
# KING ENTERPRISES

**a.** **The easiest way for a student to solve this problem is to record the journal entries that the accounting clerk made and to compare them with the journal entries that should have been made.**

**<u>Entries Recorded by the Accounting Clerk</u>**

| | | | |
|---|---|---|---|
| **Jan. 10** | **Inventory** | **9,800** | |
| | **Cash** | | **9,800** |
| | **Payment for books received on December 15th of prior year.** | | |
| **Dec. 27** | **No entry since no cash receipt or payment was involved.** | | |
| **Dec. 30** | **No entry since no cash receipt or payment was involved.** | | |

**<u>Entries that Should Have Been Recorded by the Accounting Clerk</u>**

| | | | |
|---|---|---|---|
| **Jan. 10** | **Accounts Payable** | **9,800** | |
| | **Cash** | | **9,800** |
| | **Payment for books received on December 15th of prior year.** | | |
| **Dec. 27** | **Inventory** | **19,600** | |
| | **Accounts Payable** | | **19,600** |
| | **Purchase of $20,000 of books net of the purchase discount.** | | |
| **Dec. 30** | **Accounts Receivable** | **30,000** | |
| | **Sales** | | **30,000** |
| | **Record sale on account.** | | |
| **Dec. 30** | **Cost of Goods Sold** | **24,500** | |
| | **Inventory** | | **24,500** |
| | **Record cost of books sold.** | | |

**a.1.** **Based on a comparison of the above entries, accounts receivable is understated by $30,000.**

**a.2.** **Inventory is overstated by $14,700 ($19,600 - $24,500 - $9,800).**

**a.3.** **Accounts payable is understated by $9,800 ($19,600 - $9,800).**

**a.4.** **Sales is understated by $30,000.**

**a.5.** **Cost of goods sold is understated by $24,500.**

**b.** **Net income is understated by $5,500 ($30,000 - $24,500).**

# PROBLEM 6.6A
# KING ENTERPRISES (concluded)

**c.** **The journal entry to correct the accounting clerk's errors is (assuming that King's books have yet to be closed for the year).**

| | | |
|---|---|---|
| **Accounts receivable** | **30,000** | |
| **Cost of goods sold** | **24,500** | |
| **Sales** | | **30,000** |
| **Inventory** | | **14,700** |
| **Accounts payable** | | **9,800** |

**d.** **The journal entry to correct the accounting clerk's errors is (assuming that King's books have been closed for the year).**

| | | |
|---|---|---|
| **Accounts receivable** | **30,000** | |
| **Inventory** | | **14,700** |
| **Accounts payable** | | **9,800** |
| **Retained earnings** | | **5,500** |

**e.** **The journal entry to correct the accounting clerk's errors assuming that the ending inventory balance has been adjusted based on a physical inventory (and assuming that King's books have been closed for the year) is:**

| | | |
|---|---|---|
| **Accounts receivable** | **30,000** | |
| **Accounts payable** | | **9,800** |
| **Retained earnings** | | **20,200** |

# PROBLEM 6.7A
# GENUINE ACCESSORIES

| | | |
|---|---|---|
| **a.** | **Sales ($300,000 + $750,000)** | **$ 1,050,000** |
| | **Cost of goods sold ($200,000 + $500,000)** | **(700,000)** |
| | **Gross profit** | **$ 350,000** |

| | | |
|---|---|---|
| **b.** | **Cash collections** | **$ -** |
| | **Cash disbursements** | **(400,000)** |
| | **Gross profit** | **$ (400,000)** |

**c.** **The difference between the $350,000 of gross profit under accrual accounting and the negative $400,000 gross profit under a cash-basis system reflects the balances in the accounts receivable, inventory, and accounts payable accounts for Genuine Accessories. The accounts receivable balance is $1,050,000 ($300,000 + $750,000). The inventory balance is $1,200,000 ($400,000 - $200,000 + $600,000 - $500,000 + $900,000). The accounts payable balance is $1,500,000 ($400,000 + $600,000 - $400,000 + $900,000).**

**Increases in operating current asset accounts (e.g., accounts receivable and inventory) result in cash-based metrics of income being below accrual income, whereas increases in operating current liability accounts (e.g., account payable) result in cash-based metrics of income being above accrual income. Therefore, Genuine Accessories moves from an accrual gross profit of $350,000 to a cash-based negative gross profit of ($400,000) as follows:**

**$350,000 (accrual-based gross profit) - $1,050,000 (increase in AR) - $1,200,000 (increase in inventory ) + $1,500,000 (increase in accounts payable) = ($400,000)(cash-based gross profit).**

| | | | |
|---|---|---|---|
| **d.** | **Inventory** | **300,000** | |
| | **Revaluation of Inventory to Market Value** | | **300,000** |

**A wholesaler might determine the fair value of its ending inventory by reference to recent sales prices of inventory items, assuming that these sales took place reasonably close to year-end.**

**40 Minutes, Strong**

# PROBLEM 6.8A
# CPI

***Parts a, f, and g follow; parts b, c, d, and e are on the next page.***

**a.** **The operating cycle of a merchandising company consists of purchasing merchandise, selling that merchandise to customers (often on account), and collecting the sales proceeds from these customers. The assets and liabilities involved in this cycle include cash, accounts receivable, and inventory.**

**f.** **CPI probably would use a *perpetual* inventory system. The items in its inventory have a high per-unit cost. Therefore, management will want to know the costs of the individual products included in specific sales transactions, and also will want to keep track of the items in stock. The company also has a computer-based accounting system, a full-time accountant, and a low volume of transactions. This combination of factors eliminates the potential difficulties of maintaining a perpetual system.**

**g.** **Computation of profit margin on January 6 sales transaction:**

| | | |
|---|---|---|
| **Gross profit** | **=** | **Sales price - Cost of goods sold** |
| | **=** | **$10,000 – $6,100** |
| | **=** | **<u>$3,900</u>** |
| **Gross profit margin** | **=** | **Dollar gross profit ÷ Sales revenue** |
| | **=** | **$3,900 ÷ $10,000** |
| | **=** | **<u>39%</u>** |

# PROBLEM 6.8A
# CPI (concluded)

**b.**

**General Journal**

| | | | | |
|---|---|---|---|---|
| 2010 | | | | |
| Jan | 2 | Inventory | 24,250 | |
| | | Accounts Payable (Sharp) | | 24,250 |
| | | Purchased merchandise on account; terms, 3/10, | | |
| | | n/60. Net cost, $25,000, less 3%. | | |
| | | | | |
| | 6 | Accounts Receivable (Pace Corporation) | 10,000 | |
| | | Sales | | 10,000 |
| | | Sale on account; terms, 5/10, n/90. | | |
| | | | | |
| | 6 | Cost of Goods Sold | 6,100 | |
| | | Inventory | | 6,100 |
| | | To record the cost of merchandise sold to Pace | | |
| | | Corporation. | | |
| | | | | |
| c. | | Computation of inventory at January 6: | | |
| | | Inventory at Dec. 31. 2009 | | $ 500,000 |
| | | Add: Merchandise purchased on Jan. 2 | | 24,250 |
| | | Less: Cost of goods sold on Jan. 6 | | (6,100) |
| | | Inventory at close of business on Jan. 6 | | $ 518,150 |
| | | | | |
| d. | | Journal entries assuming use of periodic system: | | |
| 2010 | | | | |
| Jan | 2 | Purchases | 24,250 | |
| | | Accounts Payable (Sharp) | | 24,250 |
| | | Purchased merchandise on account; terms, 3/10, | | |
| | | n/60. Net cost, $25,000, less 3%. | | |
| | | | | |
| | 6 | Accounts Receivable (Pace Corporation) | 10,000 | |
| | | Sales | | 10,000 |
| | | Sale on account; terms, 5/10, n/90. | | |
| | | | | |
| | | | | |
| | | | | |
| e. | | Computation of cost of goods sold: | | |
| | | Inventory (Dec. 31, 2009) | | $ 500,000 |
| | | Add: Purchases | | 24,250 |
| | | Cost of goods available for sale | | $ 524,250 |
| | | Less: Inventory (Jan. 6-per part c) | | 518,150 |
| | | Cost of goods sold | | $ 6,100 |

# SOLUTIONS TO PROBLEMS SET B
# PROBLEM 6.1B
# BIG OAK LUMBER

35 Minutes, Medium

**a.**

General Journal

| | | | | |
|---|---|---|---|---|
| Apr | 15 | Accounts Receivable | 19,700 | |
| | | Sales | | 19,700 |
| | | Sold merchandise on account. | | |
| | | | | |
| | 15 | Cost of Good Sold | 10,300 | |
| | | Inventory | | 10,300 |
| | | To record the cost of goods sold relating to the | | |
| | | sales of merchandise to Hard Hat Construction. | | |
| | | | | |
| | 19 | Inventory | 3,700 | |
| | | Accounts Payable | | 3,700 |
| | | Purchased merchandise on credit. | | |
| | | | | |
| May | 10 | Cash | 19,700 | |
| | | Accounts Receivable | | 19,700 |
| | | Collected accounts receivable. | | |
| | | | | |
| | 19 | Accounts Payable | 3,700 | |
| | | Cash | | 3,700 |
| | | Paid account payable to supplier. | | |
| | | | | |
| | 31 | Cost of Goods Sold | 2,500 | |
| | | Inventory | | 2,500 |
| | | To adjust inventory records to reflect the results | | |
| | | of the year-end physical count. | | |
| | | Inventory per accounting records | $ 116,500 | |
| | | Inventory per physical count | 114,000 | |
| | | Adjustment for inventory shrinkage | $ 2,500 | |

**b.**

BIG OAK LUMBER
Partial Income Statement
For the Year Ended December 31, 20__

| | | | | |
|---|---|---|---|---|
| | | Net sales | | $ 1,422,000 |
| | | Cost of goods sold (1) | | 723,500 |
| | | Gross profit | | $ 698,500 |
| | | | | |
| | | (1) Cost of goods sold prior to adjustment at Dec. 31 | | $ 721,000 |
| | | Add: Shrinkage adjustment at Dec. 31 | | 2,500 |
| | | Cost of goods sold (adjusted balance) | | $ 723,500 |

**c. Big Oak seems quite able to pass its extra transportation costs on to its customers and, in fact, enjoys a significant financial benefit from its remote location. The following data support these conclusions:**

| | Big Oak Lumber | Industry Average | Difference |
|---|---|---|---|
| **Annual sales ……..** | **$1,422,000** | **$1,000,000** | **$422,000** |
| **Gross profit ……** | **698,500** | **220,000 (1)** | **478,500** |
| **Gross profit rate ……** | **49.1% (2)** | **22%** | **27.1%** |

**(1) $1,000,000 sales × 22% = $220,000**
**(2) $698,500 gross profit ÷ $1,422,000 net sales = 49.1%**

**Big Oak earned a gross profit rate of 49.1%, which is significantly higher than the industry average. Big Oak's sales were a little greater than the industry average, but it earned $478,500 more gross profit than the "average" store of its size. This higher gross profit was earned even though its cost of goods sold was $8,000 to $18,000 higher than the industry average because of the additional transportation charges.**

**To have a higher-than-average cost of goods sold and still earn a much larger-than-average amount of gross profit, Big Oak must be able to charge substantially higher sales prices than most hardware stores. Presumably, the company could not charge such prices in a highly competitive environment. Thus, the remote location appears to insulate it from competition and allow it to operate more profitably than hardware stores with nearby competitors.**

15 Minutes, Easy

# PROBLEM 6.2B
# HARRY'S HABERDASHERY

**a.**

| HARRY'S HABERDASHERY | | | |
|---|---|---|---|
| Income Statement | | | |
| For the Year Ended December 31, 2009 | | | |
| | Sales | | $ 384,000 |
| | Less: Sales returns and allowances | | 4,000 |
| | Net sales | | 380,000 |
| | Cost of goods sold | | 157,630 |
| | Gross profit | | 222,370 |
| | Other expenses: | | |
| | Purchase discounts lost | $ 400 | |
| | Utilities expense | 7,000 | |
| | Office supply expense | 900 | |
| | Depreciation expense: office equipment | 4,700 | |
| | Rent expense | 10,000 | |
| | Insurance expense | 1,500 | |
| | Salaries expense | 150,000 | 174,500 |
| | Income before income taxes expense | | $ 47,870 |
| | Income tax expense | | 13,900 |
| | Net income | | $ 33,970 |
| | | | |
| | | | |

**b.** **Gross profit ÷ Net sales = gross profit margin**

**Using the figures from the income statement prepared in part a, the store's gross profit margin is computed as follows: $222,370 ÷ $380,000 = <u>59%</u>**

**c.** **Sales returns and allowances amount to only 1% of the store's total sales. Thus, it appears that customers are relatively satisfied with their purchases ($4,000 ÷ $384,000 = 1%).**

**d.** **The use of the Purchase Discounts Lost account indicates that the store records purchases net of any purchase discounts. Had the store recorded purchases at their gross invoice amounts, this account would not be used, and Purchase Discounts Taken would have appeared in the adjusted trial balance instead.**

**e.** **The $5,000 of sales taxes payable appearing in the adjusted trial balance represents sales taxes collected by the store for the sales taxes imposed on its *customers* . When the store submits this amount to the proper tax authorities, the liability will be removed. Sales taxes are applicable only when merchandise is sold to the *final customer* ; thus, retail stores normally incur no sales taxes expense.**

**f.** **The operating cycle is the time required to purchase inventory, sell the inventory, and convert the receivable from the sale, if any, into cash. Cash, Accounts Receivable, and Merchandise Inventory are the accounts that comprise the store's operating cycle.**

# PROBLEM 6.3B
# JILL'S DEPARTMENT STORES

| | | | 2008-2009 | 2007-2008 |
|---|---|---|---|---|
| **a.** | **1.** | **Change in net sales……** | **4.9% (1)** | **8.2% (2)** |
| | **2.** | **Change in net sales per square foot……** | **(.4%) (3)** | **(3.2%) (4)** |
| | **3.** | **Change in comparable store sales……** | **(2.9%) (5)** | **(3.6%) (6)** |

**(1) ($9,240 - $8,810) ÷ $8,810 = 4.9%**
**(2) ($8,810 - $8,140) ÷ $8,140 = 8.2%**
**(3) [($9,240 ÷ 6.0) - ($8,810 ÷ 5.7)] ÷ ($8,810 ÷ 5.7) = (.4%)**
**(4) [($8,810 ÷ 5.7) -($8,140 ÷ 5.1)] ÷ ($8,140 ÷ 5.1) = (3.2%)**
**(5) ($70.2 - $72.3) ÷ $72.3 = (2.9%)**
**(6) ($72.3 - $75.0) ÷ $75.0 = (3.6%)**

**b.** **While Jill's has increased its overall revenue from sales, several of the statistics indicate problems. Both sales per square foot of selling space and comparable store sales have declined. This indicates a downward trend in sales at existing stores. It is apparent that the increase in overall net sales must have resulted from adding new stores. As a result, management should reevaluate its marketing strategies.**

30 Minutes Medium

# PROBLEM 6.4B
# MARY'S TV

| | | | | |
|---|---|---|---|---|
| a. | | | | |
| | | General Journal | | |
| Date | | | | |
| (1) | | | | |
| Mar. | 6 | Inventory | 2,744 | |
| | | Accounts Payable (Whosa Industries) | | 2,744 |
| | | To record purchase of 8 TVs at net cost of $343 | | |
| | | per unit ($350, less 2%). | | |
| | | | | |
| | 11 | Cash | 1,200 | |
| | | Sales | | 1,200 |
| | | Sold 2 Whosa TVs for cash. | | |
| | | | | |
| | 11 | Cost of Goods Sold | 686 | |
| | | Inventory | | 686 |
| | | To record cost of TVs sold. | | |
| | | | | |
| | 16 | Accounts Payable (Whosa Industries) | 2,744 | |
| | | Cash | | 2,744 |
| | | Paid account within discount period. | | |
| (2) | | | | |
| Mar. | 6 | Inventory | 2,800 | |
| | | Accounts Payable (Whosa Industries) | | 2,800 |
| | | To record purchase of 8 TVs at gross invoice price | | |
| | | price ($350 per unit). | | |
| | | | | |
| | 11 | Cash | 1,200 | |
| | | Sales | | 1,200 |
| | | Sold 2 Whosa TVs for cash. | | |
| | | | | |
| | 11 | Cost of Goods Sold | 700 | |
| | | Inventory | | 700 |
| | | To record cost of TVs sold. | | |
| | | | | |
| | 16 | Accounts Payable (Whosa Industries) | 2,800 | |
| | | Cash | | 2,744 |
| | | Purchase Discounts Taken | | 56 |
| | | Paid account payable, less 2% | | |
| b. | | | | |
| (1) | | | | |
| Apr. | 6 | Accounts Payable (Whosa Industries) | 2,744 | |
| | | Purchase Discounts Lost | 56 | |
| | | Cash | | 2,800 |
| | | Made payment after discount period had expired. | | |
| (2) | | | | |
| Apr. | 6 | Accounts Payable (Whosa Industries) | 2,800 | |
| | | Cash | | 2,800 |
| | | Made payment after discount period had expired. | | |
| | | | | |

**c. The *net cost* method provides more useful information for evaluating the company's efficiency in paying its bills. This method clearly indicates the lowest price that the company may pay, and separately records any additional costs incurred as *purchase discounts lost*.**

**Under the gross price method, the liability *is not* recorded at the lowest price at which it can be settled. Hence, management *is not made aware of* available discounts that were not taken.**

30 Minutes Medium

# PROBLEM 6.5B
# HIP PANTS AND SLEEK

| | | | | |
|---|---|---|---|---|
| | | General Journal | | |
| a. | | Journal entries by Hip Pants: | | |
| | | | | |
| Oct. | 12 | Accounts Receivable (Sleek) | 18,000 | |
| | | Sales | | 18,000 |
| | | Sold merchandise on account; terms, 1/10, n/30. | | |
| | | | | |
| | 12 | Cost of Goods Sold | 6,000 | |
| | | Inventory | | 6,000 |
| | | To record cost of merchandise sold (300 pr. X $20/pr.). | | |
| | | | | |
| | 15 | Delivery Expense | 25 | |
| | | Cash | | 25 |
| | | Paid delivery charges on outbound shipment. | | |
| | | | | |
| | 16 | Sales Returns & Allowances | 240 | |
| | | Accounts Receivable (Sleek) | | 240 |
| | | Customer returned merchandise (4 pr. X $60/pr.). | | |
| | | | | |
| | 16 | Inventory | 80 | |
| | | Cost of Goods Sold | | 80 |
| | | Reduce cost of goods sold for cost of merchandise | | |
| | | returned (4 pr. X $20/pr.). | | |
| | | | | |
| | 22 | Cash | 17,582.40 | |
| | | Sales Discount | 177.60 | |
| | | Accounts Receivable (Sleek) | | 17,760 |
| | | Collected amount due, less return and less 1% | | |
| | | cash discount on remaining $17,760 balance | | |
| | | ($17,760 x 1% = $177.60). | | |
| | | | | |
| b. | | Journal entries by Sleek: | | |
| | | | | |
| Oct. | 12 | Inventory | 17,820 | |
| | | Accounts Payable (Hip Pants) | | 17,820 |
| | | Purchased 300 pairs of pants; terms, 1/10, n/30. | | |
| | | Net cost, $59.40 per pair ($60, less 1%). | | |
| | | | | |
| | 15 | Transportation-in | 25 | |
| | | Cash | | 25 |
| | | Paid transportation charge on inbound shipment. | | |
| | | | | |
| | 16 | Accounts Payable (Hip Pants) | 237.60 | |
| | | Inventory | | 237.60 |
| | | Returned 4 pairs of pants to supplier. (Net cost, | | |
| | | $59.40 per pair x 4 pairs = $237.60 | | |
| | | | | |

# PROBLEM 6.5B
# HIP PANTS AND SLEEK (concluded)

| General Journal | | | | |
|---|---|---|---|---|
| Oct | 22 | Accounts Payable (Hip Pants) | 17,582.40 | |
| | | Cash | | 17,582.40 |
| | | Paid within discount period balance owed to Hip | | |
| | | Pants ($17,820 - $237.60 = $17,582.40). | | |
| | | | | |
| | | | | |
| | | | | |

**c.** **Yes. Sleek *should* take advantage of 1/10, n/30 purchase discounts, even if it must borrow money for a short period of time at an annual rate of 12%. By taking advantage of the discount, the company saves 1% by making payment 20 days early. At an annual rate of 12% per year, the bank charges only .66% interest over a 20 day period (12% x 20/365 = 0.66%). Thus, the cost of passing up the discount is greater than the cost of short-term**

# PROBLEM 6.6B
# QUEEN ENTERPRISES

**a.** **The easiest way for a student to solve this problem is to record the journal entries that the accounting clerk made and to compare them with the journal entries that should have been made.**

**Entries Record by the Accounting Clerk**

| | | | |
|---|---|---|---|
| **Jan. 7** | **Inventory** | **4,900** | |
| | **Cash** | | **4,900** |
| | **Payment for furniture received on December 20th of prior year.** | | |
| **Dec. 23** | **No entry since no cash receipt or payment was involved.** | | |
| **Dec. 26** | **No entry since no cash receipt or payment was involved.** | | |

**Entries that Should Have Been Recorded by the Accounting Clerk**

| | | | |
|---|---|---|---|
| **Jan. 7** | **Accounts Payable** | **4,900** | |
| | **Cash** | | **4,900** |
| | **Payment for furniture received on December 20th of prior year.** | | |
| **Dec. 23** | **Inventory** | **9,800** | |
| | **Accounts Payable** | | **9,800** |
| | **Purchase of $10,000 of furniture net of the purchase discount.** | | |
| **Dec. 26** | **Accounts Receivable** | **15,000** | |
| | **Sales** | | **15,000** |
| | **Record sale on account.** | | |
| **Dec. 26** | **Cost of Goods Sold** | **12,250** | |
| | **Inventory** | | **12,250** |
| | **Record cost of books sold.** | | |

**a.1.** **Based on a comparison of the above entries, accounts receivable is understated by $15,000.**

**a.2.** **Inventory is overstated by $7,350 ($9,800 - $12,250 - $4,900).**

**a.3.** **Accounts payable is understated by $4,900 ($9,800 - $4,900).**

**a.4.** **Sales is understated by $15,000.**

**a.5.** **Cost of goods sold is understated by $12,250.**

**b.** **Net income is understated by $2,750 ($15,000 - $12,250).**

**c.** **The journal entry to correct the accounting clerk's errors is (assuming that Queen's books have yet to be closed for the year).**

| | | |
|---|---|---|
| **Accounts receivable** | **15,000** | |
| **Cost of goods sold** | **12,250** | |
| **Sales** | | **15,000** |
| **Inventory** | | **7,350** |
| **Accounts payable** | | **4,900** |

**d.** **The journal entry to correct the accounting clerk's errors is (assuming that Queen's books have been closed for the year).**

| | | |
|---|---|---|
| **Accounts receivable** | **15,000** | |
| **Inventory** | | **7,350** |
| **Accounts payable** | | **4,900** |
| **Retained earnings** | | **2,750** |

**e.** **The journal entry to correct the accounting clerk's errors assuming that the ending inventory balance has been adjusted based on a physical inventory (and assuming that Queen's books have been closed for the year) is:**

| | | |
|---|---|---|
| **Accounts receivable** | **15,000** | |
| **Accounts payable** | | **4,900** |
| **Retained earnings** | | **10,100** |

# PROBLEM 6.7B
# COMPUTER RESOURCES

**a.**

| | |
|---|---|
| **Sales** | **$ 100,000** |
| **Cost of goods sold** | **(50,000)** |
| **Gross profit** | **$ 50,000** |

**b.**

| | |
|---|---|
| **Cash collections** | **$ -** |
| **Cash disbursements** | **-** |
| **Gross profit** | **$ -** |

**c.** **The difference between the $50,000 of gross profit under accrual accounting and the breakeven gross profit under a cash-basis system reflects the balances in the accounts receivable, inventory, and accounts payable for Computer Resources. The accounts receivable balance is $100,000. The inventory balance is $250,000 ($100,000 - $50,000 + $200,000). The accounts payable balance is $300,000 ($100,000 + $200,000).**

**Increases in operating current asset accounts (e.g., accounts receivable and inventory) result in cash-based metrics of income being below accrual income, whereas increases in operating current liability accounts (e.g., account payable) result in cash-based metrics of income being above accrual income. Therefore, Computer Resources moves from an accrual gross profit of $50,000 to a cash-based breakeven amount as follows:**

**$50,000 (accrual-based gross profit) - $100,000 (increase in AR) - $250,000 (increase in inventory ) + $300,000 (increase in accounts payable) = $0 (cash-based gross profit).**

**d.**

| | | |
|---|---|---|
| **Inventory** | **125,000** | |
| **Revaluation of Inventory to Market Value** | | **125,000** |
| **To revalue the ending inventory at market value.** | | |

**A retailer might determine the fair value of its ending inventory by reference to recent sales prices of inventory items, assuming that these sales took place reasonably close to year-end.**

**40 Minutes, Strong**

# PROBLEM 6.8B
# SUI

***Parts a, c, g, and h follow; parts b, d, e, and f are on the next page.***

**a.** **The operating cycle of a merchandising company consists of purchasing merchandise, selling that merchandise to customers (often on account), and collecting the sales proceeds from these customers. The assets and liabilities involved in this cycle include cash, accounts receivable, and inventory.**

**c.** **In the *January 5* entry, the $38,800 debit to the Inventory control account should be allocated among and posted to the appropriate product accounts in the inventory subsidiary ledger. The information posted should include the cost and quantities of each type of merchandise purchased. In addition, the credit portion of this entry should be posted to the Double, Inc. account in SUI's accounts payable subsidiary ledger.**

**In the first entry on *January 10*, the debit to the Accounts Receivable control account should be posted to the Air Corporation account in SUI's accounts receivable ledger.**

**In the final entry, the credit to the Inventory control account should be allocated among the thirty products sold and posted to the appropriate accounts in the inventory ledger.**

**g.** **SUI probably would use a *perpetual* inventory system. The items in its inventory have a high per-unit cost. Therefore, management will want to know the costs of the individual products included in specific sales transactions, and also will want to keep track of the items in stock. The company also has a computer-based accounting system, a full-time accountant, and a low volume of transactions. This combination of factors eliminates the potential difficulties of maintaining a perpetual system.**

**h.** **Computation of profit margin on January 10 sales transaction:**

| | | |
|---|---|---|
| **Gross profit** | **=** | **Sales price - Cost of goods sold** |
| | **=** | **$28,000 – $10,000** |
| | **=** | **<u>$18,000</u>** |
| **Gross profit margin** | **=** | **Dollar gross profit ÷ Sales revenue** |
| | **=** | **$18,000 ÷ $28,000** |
| | **=** | **<u>64.3%</u>** |

# PROBLEM 6.8B
# SUI (concluded)

| | | | | |
|---|---|---|---|---|
| b. | | | | |
| | | General Journal | | |
| | | | | |
| 2010 | | | | |
| Jan | 5 | Inventory | 38,800 | |
| | | Accounts Payable (Double) | | 38,800 |
| | | Purchased merchandise on account; terms, 3/10, | | |
| | | n/60, net cost, $40,000, less 3%. | | |
| | | | | |
| | 10 | Accounts Receivable (Air Corporation) | 28,000 | |
| | | Sales | | 28,000 |
| | | Sale on account; terms, 5/10, n/90. | | |
| | | | | |
| | 10 | Cost of Goods Sold | 10,000 | |
| | | Inventory | | 10,000 |
| | | To record the cost of merchandise sold to Air | | |
| | | Corporation. | | |
| | | | | |
| d. | | Computation of inventory at January 10. | | |
| | | Inventory at Dec. 31, 2009 | | $ 500,000 |
| | | Add: Merchandise purchased on Jan. 5 | | 38,800 |
| | | Less: Cost of goods sold on Jan. 10 | | (10,000) |
| | | Inventory at close of business on Jan. 10 | | $ 528,800 |
| | | | | |
| e. | | Journal entries assuming use of a periodic system | | |
| 2,010 | | | | |
| Jan | 5 | Purchases | 38,800 | |
| | | Accounts payable (Double) | | 38,800 |
| | | Purchased merchandise on account; terms, 3/10, | | |
| | | n/60. Net cost, $40,000, less 3%. | | |
| | | | | |
| | 10 | Accounts Receivable (Air Corporation) | 28,000 | |
| | | Sales | | 28,000 |
| | | Sale on account; terms, 5/10, n/90. | | |
| | | | | |
| f. | | Computation of cost of goods sold: | | |
| | | Inventory (Dec. 31, 2009) | | $ 500,000 |
| | | Add: Purchases | | 38,800 |
| | | Cost of goods available for sale | | $ 538,800 |
| | | Less: Inventory (Jan. 10--per part *d* ) | | 528,800 |
| | | Cost of goods sold | | $ 10,000 |

# SOLUTIONS TO CRITICAL THINKING CASES

**35 Minutes, Medium**

## CASE 6.1
## SELECTING AN INVENTORY SYSTEM

**a. The Frontier Shop would probably use a *periodic* inventory system. Several factors support this conclusion. First, this is a small business that does not have a computerized accounting system. An antique cash register is not an electronic device that can automatically determine the cost of items sold. Thus, the only dollar amount recorded at the time of sale is the sales revenue. Also, the fact that the accounting records are maintained by a bookkeeper who comes in at the end of the month suggests a periodic inventory system, rather than a continuous updating of the inventory account. Finally, this business does not appear to need an inventory subsidiary ledger, as the owner is likely to be very knowledgeable as to how quickly various items are selling and the quantity of each item currently in stock.**

**In summary, The Frontier Shop has no need for a perpetual inventory system and does not have the resources to maintain one.**

**b. Although Allister's Corner is a small business with a manual accounting system, it probably would maintain a *perpetual* inventory system. The primary reason for using a perpetual system is the high unit cost of the paintings comprising the company's inventory. For purposes of internal control, management would want the accounting records to indicate the quantity, cost, and identity of the paintings in stock. Also, the low volume of sales transactions—three or four sales each week—makes the record-keeping burden of maintaining a perpetual system of virtually no consequence.**

**c. The publicly owned publishing company probably would use a *perpetual* inventory system for several reasons. First, in order to service its customers, the company needs to have the necessary quantities of specific textbooks at the appropriate warehouses and at the proper time. The need to carefully control the quantity and location of inventory on hand suggests the need for an inventory subsidiary ledger. Next, as a publicly owned corporation, this company must issue quarterly financial statements. The perpetual inventory system is better suited to the issuance of quarterly (or monthly) financial statements than is a periodic system.**

**d. The facts suggest that Toys-4-You uses a *perpetual* inventory system. Point-of-sale terminals can maintain a perpetual inventory system at little or no incremental cost. In fact, this is the principal reason for using point-of-sale terminals. Also, the fact that headquarters is provided with information about the weekly profitability of each store suggests the use of an accounting system that is capable of measuring the cost of goods sold prior to year-end.**

**Finally, the size of Toys-4-You—86 retail stores—suggests a publicly owned corporation with quarterly reporting obligations.**

# CASE 6.1
# SELECTING AN INVENTORY SYSTEM
# (concluded)

**e. An ice cream truck would use a *periodic* inventory system. Several factors support this conclusion. First, it would be impractical for an ice cream truck to utilize a perpetual system, as this would involve separately recording the cost of each ice cream bar and popsicle sold. Next, inventory is not material in this type of business. In the course of a month, the quantity of ice cream products purchased will be very close to the quantity sold; very little inventory remains on hand. Finally, a person operating an independent ice cream truck probably has no external reporting responsibilities other than the preparation of annual income tax returns. It is unlikely that the operators of such businesses would maintain sophisticated accounting systems.**

**f. Several factors suggest that TransComm would use a *perpetual* inventory system. For one, management needs to know precisely how many units are on hand at any time in order to know whether the company can fill the large sales orders it receives from customers. Next, the fact that the company sells only one product makes the operation of a perpetual inventory system relatively simple; the accountants must only keep track of the number of units purchased and sold. Finally, TransComm's accounting records are maintained on commercial accounting software. Virtually all software programs used in accounting for inventories are based upon perpetual inventory systems.**

25 Minutes, Medium

# CASE 6.2
# A COST-BENEFIT ANALYSIS

**a.**

| VILLAGE HARDWARE | | |
|---|---|---|
| Partial Income Statement | | |
| For the Year Ended December 31, 20__ | | |
| Net sales | | $ 580,000 |
| Cost of goods sold: | | |
| Inventory, January 1 | $ 58,000 | |
| Purchases | 297,250 | |
| Cost of goods available for sale | $ 355,250 | |
| Less: Inventory, December 31 | 49,300 | |
| Cost of goods sold | | 305,950 |
| Gross profit | | $ 274,050 |
| | | |
| | | |
| **b.** Loss from inventory "shrinkage" at cost: | | |
| | | |
| Cost of goods sold, per part a | | $ 305,950 |
| Less: Cost of goods sold excluding any shrinkage losses | | |
| (net sales, $580,000 x 50%) | | 290,000 |
| Inventory shrinkage losses for the year, at cost | | $ 15,950 |
| | | |
| Inventory shrinkage losses for the year, at retail | | |
| prices (cost, $15,950 x 200%) | | $ 31,900 |
| | | |
| | | |
| | | |

**c.** **The loss sustained by Village Hardware as a result of inventory shrinkage is the cost of the lost merchandise, *not its resale value.* Thus, hiring the security guard would *not* be a profitable strategy. The annual cost of the guard amounts to $21,600, while the potential savings is only $15,950.**

**Furthermore, not all of the "shrinkage" loss necessarily stems from shoplifting. Other elements of "shrinkage" are breakage, spoilage, and employee theft. If the security guard could not eliminate these other types of losses, shrinkage would not be reduced to zero even after the guard was hired.**

**Group assignment:**

**No time estimate**

# CASE 6.3
# GROUP ASSIGNMENT WITH BUSINESS COMMUNITY INVOLVEMENT

**No specific solution is provided for this group assignment.**

**In this assignment, students are likely to encounter many variations in perpetual inventory systems. For example, some businesses may maintain perpetual records only in units, others may enter dollar amounts on a monthly basis, and still others may maintain perpetual records for use by management, but may use estimating techniques such as the *gross profit method* or the *retail method* in interim financial statements.**

**The textbook will discuss some of these variations in Chapter 8. At this point, however, we consider it useful for students to learn first-hand that accounting systems are tailored to meet the specific needs of the organization.**

**20 Minutes, Medium**

# CASE 6.4
# MANIPULATING INCOME
# ETHICS, FRAUD & CORPORATE GOVERNANCE

**a. Your first thought should probably be whether you want to work for someone who asks you to do something that is wrong in order to benefit himself. You should probably start by reasoning with your supervisor about why you think what he proposes is not a good thing, or the right thing, to do. One factor that should be considered is the potential for a criminal judgment against you and the potential that might have on your life, reputation, career, family etc. Another implication is what will happen in future years should you start down the "slippery slope" proposed by your supervisor. (See answer to part b.) Once you start doing things like your supervisor proposes, will you have to continue doing them, perhaps in greater proportions over time?**

**Ultimately, you are going to have to decide whether to take the high ground or the low ground. Assuming you decide on the former, and you have reasoned with your supervisor to no avail, you may need to discuss this with another person in your company. If you have a mentor or some other person of authority with whom you can confide, you may want to go to that person with your concerns. You may determine that your only option is to go to your supervisor's superior. Even if this means losing your job, you cannot afford to compromise your own reputation, or put yourself at risk of criminal charges, to help another person who is trying to artificially improve his own financial wellbeing. The behavior your supervisor exhibits will, at best, result only in short-tem gains and will ultimately be his downfall. You cannot afford to go down with him. If Albers, Inc. is a public company, it will be required to have a "hotline" where employees can confidentially report concerns regarding the company's accounting practices. You might want to avail yourself of the hotline in this situation.**

**b. There are several implications, other than integrity, which come into play in a situation such as the one described in this case. For example, an intentional overstatement of <u>ending</u> inventory for purposes of reducing cost of goods sold and increasing gross profit and net income will flow into the next accounting period as an overstatement of <u>beginning</u> inventory. An overstatement of beginning inventory in Year 2 has the opposite effect of what your supervisor is trying to accomplish in Year 1. Specifically, the Year 2 overstatement of beginning inventory will result in a higher cost of goods sold, low gross profit, and lower net income in Year 2.**

**One thing you need to consider before going down this path with your supervisor is what he is likely to ask you to do a year from now when the above situation is in place. Will he expect you to engage in an even greater overstatement of ending inventory to offset the carryover effect of last year's restatement, plus improve Year 2 performance over Year 1 performance? Will he come up with other schemes to improve the appearance of the company's performance that will require your cooperation to implement? Once you begin intentionally distorting financial numbers, you almost always must keep doing so, and often at more extreme levels, in order to accomplish your objective of obscuring the facts.**

**15 Minutes, Medium**

# CASE 6.5
# CVS IS RIDING HIGH FOR NOW
## *BUSINESS WEEK*

**A third-party sale occurs when an insurance company (or government agency) is responsible for reimbursing a retail pharmacy for a customer's prescription medication. These third-party payers rarely reimburse the pharmacy the full price for medications purchased by those covered by prescription drug plans.**

**If the sales mix of CVS Corporation becomes more heavily comprised of these kinds of third-party transactions, its revenue growth will be constrained by the restrictive reimbursement terms characteristic of so many prescription drug plans. While the company's revenue may be constrained by these plans, its cost of goods sold will remain the same (or possibly increase). Should this happen, the company's gross profit margin will likely experience downward pressure.**

**25 Minutes, Easy**

# CASE 6.6
# EXPLORING THE ANNUAL REPORT OF GAP, INC.
# INTERNET

***Note:*** **We cannot supply quantitative answers to this assignment as they are time sensitive. Our answers provide only general information about the requirements.**

**a. Financial information available at the company's home page includes annual reports, proxy statements, SEC filings, sales and earnings summaries, web casts, news releases, stock charts, analyst coverage, and more.**

**b. Information pertaining to the company's performance is found throughout its annual report in the following sections: (1) 10-Year Selected Financial Data, (2) Management's Discussion and Analysis, and (3) Consolidated Financial Statements.**