

# CHAPTER 8

## Reporting and Analyzing Receivables

### Learning Objectives

1. Identify the different types of receivables.
2. Explain how accounts receivable are recognized in the accounts.
3. Describe the methods used to account for bad debts.
4. Compute the interest on notes receivable.
5. Describe the entries to record the disposition of notes receivable.
6. Explain the statement presentation of receivables.
7. Describe the principles of sound accounts receivable management.
8. Identify ratios to analyze a company's receivables.
9. Describe methods to accelerate the receipt of cash from receivables.

### Summary of Questions by Learning Objectives and Bloom's Taxonomy

Item	LO	BT	Item	LO	BT	Item	LO	BT	Item	LO	BT	Item	LO	BT
<b>Questions</b>														
1.	1	C	6.	3	K	11.	4	AP	16.	7	K	21.	9	C
2.	1	K	7.	3	C	12.	5	C	17.	8	C	22.	9	AP
3.	3	C	8.	7	C	13.	6	K	18.	7, 8	C	23.	9	C
4.	3	C	9.	4	C	14.	7	K	19.	8	AP	24.	9	AP
5.	3	AP	10.	4	K	15.	7	C	20.	9	K			
<b>Brief Exercises</b>														
1.	1	C	5.	3	AP	8.	4	AP	10.	8	AP	12.	9	AP
2.	2	AP	6.	4	AP	9.	3, 6, 7, 8	AP	11.	9	AP			
3.	3	AP	7.	4	AP									
4.	3	AP												
<b>Do It! Review Exercises</b>														
1.	3	AP	2.	4, 5	AP	3.	8	AP	4.	9	AP			
<b>Exercises</b>														
1.	2	AP	5.	3	AP	8.	4, 5	AP	11.	7, 8	AN	14.	9	C
2.	2	AP	6.	3	AP	9.	6	AP	12.	7, 8, 9	AN	15.	9	AP
3.	2, 3	AP	7.	4, 5	AP	10.	7	K				16.	9	AP
4.	3	AP							13.	9	AP	17.	9	AN
<b>Problems: Set A</b>														
1.	2, 3	AP	3.	2, 3	AP	6.	2, 4, 5	AP	8.	4, 5, 6, 9	AP	9.	7, 8	AN
2.	2, 3, 8	AP	4.	3	AP	7.	8	C						
5.	2, 3	AP												
<b>Problems: Set B</b>														
1.	2, 3	AP	3.	2, 3	AP	6.	2, 4, 5	AP	8.	4, 5, 6, 9	AP	9.	7, 8	AN
2.	2, 3, 8	AP	4.	3	AP	7.	8	C						
5.	2, 3	AP												

\*Continuing Cookie Solutions for this chapter are available online.

## ASSIGNMENT CHARACTERISTICS TABLE

<b>Problem Number</b>	<b>Description</b>	<b>Difficulty Level</b>	<b>Time Allotted (min.)</b>
1A	Journalize transactions related to bad debts.	Simple	15–20
2A	Prepare journal entries related to bad debt expense, and compute ratios.	Simple	15–20
3A	Journalize transactions related to bad debts.	Moderate	20–30
4A	Compute bad debts amounts.	Moderate	20–25
5A	Journalize entries to record transactions related to bad debts.	Moderate	20–30
6A	Journalize various receivables transactions.	Moderate	40–50
7A	Explain the impact of transactions on ratios.	Moderate	20–30
8A	Prepare entries for various credit card and notes receivable transactions.	Complex	50–60
9A	Calculate and interpret various ratios.	Moderate	10–15
1B	Journalize transactions related to bad debts.	Simple	15–20
2B	Prepare journal entries related to bad debt expense, and compute ratios.	Simple	15–20
3B	Journalize transactions related to bad debts.	Moderate	20–30
4B	Compute bad debts amounts.	Moderate	20–25
5B	Journalize entries to record transactions related to bad debts.	Moderate	20–30
6B	Journalize various receivables transactions.	Moderate	40–50
7B	Explain the impact of transactions on ratios.	Moderate	20–30
8B	Prepare entries for various credit card and notes receivable transactions.	Complex	50–60
9B	Calculate and interpret various ratios.	Moderate	10–15

# ANSWERS TO QUESTIONS

1. Accounts receivable are amounts customers owe on account. They result from the sale of goods and services (i.e., in trade). Notes receivable represent claims that are evidenced by formal instruments of credit.
2. Other receivables include nontrade receivables such as interest receivable, loans to company officers, advances to employees, and income taxes refundable.
3. The essential features of the allowance method of accounting for bad debts are:
  - (1) Uncollectible accounts receivable are estimated and matched against revenues in the same accounting period in which the revenues are recorded.
  - (2) Estimated uncollectibles are debited to Bad Debt Expense and credited to Allowance for Doubtful Accounts through an adjusting entry at the end of each period.
  - (3) Actual uncollectibles are debited to Allowance for Doubtful Accounts and credited to Accounts Receivable at the time the specific account is written off as uncollectible.
4. Mitch should realize that the decrease in cash realizable value occurs when estimated uncollectibles are recognized in an adjusting entry. The write-off of an uncollectible account reduces both accounts receivable and the allowance for doubtful accounts by the same amount. Thus, cash realizable value does not change.
5. The adjusting entry under the percentage of receivables basis is:
 

Bad Debt Expense .....	2,900	
Allowance for Doubtful Accounts (\$5,100 – \$2,200) .....		2,900
6. Tootsie Roll reports two types of receivables on its balance sheet: Accounts receivable trade, and Other receivables. Since Tootsie Roll's balance sheet reports allowance amounts for receivables, we know that Tootsie Roll uses the allowance method rather than the direct write-off method.
7. Under the direct write-off method, bad debt losses are not estimated and no allowance account is used. When an account is determined to be uncollectible, the loss is debited to Bad Debt Expense and credited to Accounts Receivable. The direct write-off method makes no attempt to match bad debts expense to revenues or to show the cash realizable value of the receivables in the balance sheet.
8. Offering credit usually results in an increase in sales because customers prefer to "buy now and pay later". If a company decides to extend credit to customers, it should also establish credit standards to determine if a particular customer is credit worthy. Standards that are easily met can result in additional sales being made to customers that may not be able to meet the "tighter" credit policies of competitors. If such customers fail to pay, the additional sales revenue will be offset by higher collection costs and bad debts expense.
9. A promissory note gives the holder a stronger legal claim than one on an account receivable. As a result, it is easier to sell to another party. Promissory notes are negotiable instruments, which means they can be transferred to another party by endorsement. The holder of a promissory note also can earn interest.
10. The maturity date of a promissory note may be stated in one of three ways: (1) on demand, (2) on a stated date, and (3) at the end of a stated period of time.

## Questions Chapter 8 (Continued)

11. The missing amounts are: (a) \$27,000, (b) 10%, (c) six months or 180 days, and (d) \$7,200.
12. When Carrera Company has dishonored a note, the lender can renegotiate new terms for the receivable which is equal to the full amount of the note plus the interest due. It will then try to collect the balance due, or as much as possible. If there is no hope of collection, it will write-off the note receivable.
13. Each of the major types of receivables should be identified in the balance sheet or in the notes to the financial statements. Both the gross amount of receivables and the allowance for doubtful accounts should be reported. If collectible within a year or the operating cycle, whichever is longer, these receivables are reported as current assets immediately below short-term investments. Notes receivables are usually listed before accounts receivable because notes are more easily converted to cash.
14. The steps involved in receivables management are:
  - (1) Determine to whom to extend credit.
  - (2) Establish a payment period.
  - (3) Monitor collections.
  - (4) Evaluate the liquidity of receivables.
  - (5) Accelerate cash receipts from receivables when necessary.
15. A company can prepare an aging schedule to monitor collection success. An aging schedule provides information about the overall collection experience of a company and identifies problem accounts.
16. A concentration of credit risk is a threat of nonpayment from either a single large customer or class of customers that could adversely affect the company's financial health.
17. An increase in the current ratio normally indicates an improvement in short-term liquidity. This may not always be the case because the composition of current assets may vary. In order to determine if the increase is an improvement in financial health, other ratios that should be considered include: accounts receivable turnover ratio and average collection period.
18. An increase of more than 100% in the average collection period is probably caused by the adoption of looser credit standards. The new sales director may have increased sales by extending credit to customers that did not meet the company's previous credit standards. Management should try to determine if the longer collection period jeopardizes the company's overall financial position. It should compare its collection period to that of its competitors to determine if it is reasonable. It should also monitor collections to see if the additional sales are producing significant increases in costs associated with collection and bad debts. To reduce the average collection period, management might consider offering a sales discount to encourage customers to pay sooner.
19. Net credit sales for the period are  $9.05 \times \$3,424 \text{ million} = \$30,987.2 \text{ million}$ .

Average collection period in days =  $365 \text{ days} \div 9.05 = 40.3 \text{ days}$ .

## Questions Chapter 8 (Continued)

- 20.** From its own credit cards, the JC Penney Company may realize financing charges from customers who do not pay the balance due within a specified grace period. National credit cards offer the following advantages:
- (1) The credit card issuer does the credit investigation of the customer.
  - (2) The issuer maintains individual customer accounts.
  - (3) The issuer undertakes the collection process and absorbs any losses from uncollectible accounts.
  - (4) The retailer receives cash more quickly from the credit card issuer than it would from individual customers.
- 21.** The reasons companies sell their receivables are:
- (1) For competitive reasons, companies often must provide financing to purchasers of their goods. Such financing can result in receivables balances that are larger than the company wishes to hold. Selling the receivables reduces the excessive balance.
  - (2) Receivables may be sold because they may be the only reasonable source of cash.
  - (3) Billing and collection are often time-consuming and costly. As a result, it is often easier for a retailer to sell the receivables to another party that has expertise in billing and collecting receivables.
- 22.**
- |  |         |
|--|---------|
| Cash .....                                   | 388,000 |
| Service Charge Expense (3% X \$400,000)..... | 12,000  |
| Accounts Receivable .....                    | 400,000 |
- 23.** Sales revenue is recorded when goods or services are provided, even if cash is yet to be received. As a consequence, if sales are growing rapidly, cash collections are sometimes significantly lower than sales.
- 24.** Cash collections can be determined by adjusting Sales Revenue for the net change in Accounts Receivable. An increase in the receivables balance is deducted from Sales Revenue, a decrease in the receivables balance is added to Sales Revenue.

# SOLUTIONS TO BRIEF EXERCISES

## BRIEF EXERCISE 8-1

- (a) Other receivables.
- (b) Notes receivable.
- (c) Accounts receivable.

## BRIEF EXERCISE 8-2

(a)	Accounts Receivable .....	23,000	
	Sales Revenue .....		23,000
(b)	Sales Returns and Allowances .....	2,400	
	Accounts Receivable.....		2,400
(c)	Cash (\$20,600 – \$412) .....	20,188	
	Sales Discounts (\$20,600 X 2%).....	412	
	Accounts Receivable (\$23,000 – \$2,400) .....		20,600

## BRIEF EXERCISE 8-3

(a)	Allowance for Doubtful Accounts.....	4,300	
	Accounts Receivable.....		4,300
(b)		(1) <u>Before Write-Off</u>	(2) <u>After Write-Off</u>
	Accounts receivable	\$700,000	\$695,700
	Less: Allowance for		
	doubtful accounts	<u>25,000</u>	<u>20,700</u>
	Cash realizable value	<u>\$675,000</u>	<u>\$675,000</u>

#### BRIEF EXERCISE 8-4

Accounts Receivable .....	4,300	
Allowance for Doubtful Accounts.....		4,300
Cash.....	4,300	
Accounts Receivable .....		4,300

#### BRIEF EXERCISE 8-5

(a) Bad Debt Expense		
$[(\$400,000 \times 2\%) - \$2,800]$ .....	5,200	
Allowance for Doubtful Accounts.....		5,200
(b) Bad Debt Expense		
$[(\$400,000 \times 2\%) + \$900]$ .....	8,900	
Allowance for Doubtful Accounts.....		8,900

#### BRIEF EXERCISE 8-6

	<u>Interest</u>	<u>Maturity Date</u>
(a)	\$800	August 9
(b)	\$875	October 12
(c)	\$200	July 11

#### BRIEF EXERCISE 8-7

	<u>Maturity Date</u>	<u>Annual Interest Rate</u>	<u>Total Interest</u>
(a)	May 31	9%	\$9,000
(b)	August 1	8%	\$ 600
(c)	September 7	10%	\$6,000

#### BRIEF EXERCISE 8-8

Jan. 10	Accounts Receivable .....	8,000	
	Sales Revenue.....		8,000
Feb. 9	Notes Receivable.....	8,000	
	Accounts Receivable .....		8,000

## BRIEF EXERCISE 8-9

(a) Bad Debt Expense.....	18,000	
Allowance for Doubtful Accounts.....		18,000

(b) Current assets		
Cash.....		\$ 90,000
Accounts receivable.....	\$400,000	
Less: Allowance for doubtful accounts.....	<u>18,000</u>	382,000
Inventory .....		180,000
Supplies.....		<u>13,000</u>
		<u>\$665,000</u>

$$(c) \text{ Accounts receivable turnover ratio} = \frac{\$3,000,000}{\$300,000} = 10 \text{ times}$$

$$\text{Average collection period} = \frac{365 \text{ days}}{10} = 36.5 \text{ days}$$

The accounts receivable turnover ratio is a liquidity measure. The average collection period indicates the effectiveness of a company's credit and collection policies. To evaluate Gehrig's liquidity and credit policies, these measures should be compared to the same measures for competitors.

## BRIEF EXERCISE 8-10

Accounts Receivable Turnover Ratio:

$$\frac{\$23.1\text{B}}{(\$3.2\text{B} + 3.25\text{B}) \div 2} = \frac{\$23.1\text{B}}{\$3.225\text{B}} = 7.2 \text{ times}$$

Average Collection Period:

$$\frac{365 \text{ days}}{7.2 \text{ times}} = 50.7 \text{ days}$$



## BRIEF EXERCISE 8-11

(a)	Cash (\$200 – \$6).....	194	
	Service Charge Expense (\$200 X 3%).....	6	
	Sales Revenue.....		200
(b)	Cash (\$65,000 – \$1,950).....	63,050	
	Service Charge Expense (\$65,000 X 3%).....	1,950	
	Accounts Receivable .....		65,000

## BRIEF EXERCISE 8-12

Accounts Receivable			
Beg.	70,000		
Sales	598,000	577,000	Collections
End	91,000		

or

Sales	–	Increase in Receivables	=	Cash Collections
\$598,000	–	(\$91,000 – \$70,000)	=	\$577,000

## SOLUTIONS TO DO IT! REVIEW EXERCISES

### DO IT! 8-1

The following entry should be prepared to bring the balance in the Allowance for Doubtful Accounts up from \$5,700 credit to \$21,700 credit (7% X \$310,000):

Bad Debt Expense .....	16,000	
Allowance for Doubtful Accounts .....		16,000
(To record estimate of uncollectible accounts)		

## DO IT! 8-2

The interest payable at maturity is \$186:

$$\text{Face} \times \text{Rate} \times \text{Time} = \text{Income}$$

$$\$6,200 \times 9\% \times 4/12 = \$186$$

The entry recorded by Berkman Wholesalers at the maturity date is:

Cash .....	6,386	
Notes Receivable .....		6,200
Interest Revenue .....		186
(To record collection of Almonte note and interest)		

## DO IT! 8-3

(a)	Net credit sales	÷	Average net accounts receivable	=	Accounts receivable turnover ratio
	\$1,600,000	÷	$\frac{\$108,000 + \$120,000}{2}$	=	14.0 times
(b)	Days in year	÷	Accounts receivable turnover ratio	=	Average collection period in days
	365	÷	14.0 times	=	26.1 days

## DO IT! 8-4

To speed up the collection of cash, Lounow sells \$170,000 of its accounts receivable to a factor. Assuming the factor charges Lounow a 2% service charge, it would make the following entry:

Cash .....	166,600	
Service Charge Expense (\$170,000 X 2%) .....	3,400	
Accounts Receivable .....		170,000
(To record sale of receivables to factor)		

# SOLUTIONS TO EXERCISES

## EXERCISE 8-1

Jan. 6	Accounts Receivable—Foley Inc .....	9,200	
	Sales Revenue .....		9,200
16	Cash (\$9,200 – \$92) .....	9,108	
	Sales Discounts (1% X \$9,200).....	92	
	Accounts Receivable—Foley Inc .....		9,200

## EXERCISE 8-2

Jan. 10	Accounts Receivable—Milo .....	1,700	
	Sales Revenue .....		1,700
Feb. 12	Cash .....	1,100	
	Accounts Receivable—Milo .....		1,100
Mar. 10	Accounts Receivable—Milo .....	6	
	Interest Revenue		
	[1% X (\$1,700 – \$1,100)] .....		6

## EXERCISE 8-3

(a)	Accounts Receivable .....	800,000	
	Sales Revenue .....		800,000
	Cash.....	763,000	
	Accounts Receivable .....		763,000
(b)	Allowance for Doubtful Accounts .....	7,300	
	Accounts Receivable .....		7,300
(c)	Accounts Receivable .....	3,100	
	Allowance for Doubtful Accounts .....		3,100
	Cash.....	3,100	
	Accounts Receivable .....		3,100

## EXERCISE 8-3 (Continued)

(d)	Bad Debt Expense.....	20,200	
	Allowance for Doubtful Accounts.....		20,200

### Allowance for Doubtful Accounts

	Beg. Bal.	9,000	
Write-off	7,300	Recovery	3,100
	Bad Debts	20,200	[\$25,000 – (\$9,000 + \$3,100 – \$7,300)]
	End Bal.	25,000	

(e)	Accounts Receivable		Allowance for Doubtful Accounts	
	Beg. Bal.	200,000	Collections	763,000
	Sales	800,000	Write-off	7,300
	Recovery	3,100	Collections	3,100
	End Bal.	229,700		
			Beg. Bal.	9,000
			Write-off	7,300
			Recovery	3,100
			Bad Debts	20,200
			End Bal.	25,000

(f) Net realizable value of receivables is \$204,700 (\$229,700 – \$25,000)

## EXERCISE 8-4

(a)	Dec. 31	Bad Debt Expense .....	900	
		Accounts Receivable—Hiller .....		900
(b)	Dec. 31	Bad Debt Expense .....	6,700	
		Allowance for Doubtful Accounts		
		[((\$78,000 X 10%) – \$1,100)] .....		6,700
(c)	Dec. 31	Bad Debt Expense .....	6,740	
		Allowance for Doubtful Accounts		
		[((\$78,000 X 8%) + \$500)] .....		6,740

## EXERCISE 8-5

(a)	<u>Accounts Receivable</u>	<u>Amount</u>	<u>%</u>	<u>Estimated Uncollectible</u>
	Current	\$65,000	2	\$1,300
	1–30 days past due	12,900	5	645
	31–90 days past due	10,100	30	3,030
	Over 90 days past due	7,400	50	<u>3,700</u>
				<u>\$8,675</u>

- (b) Mar. 31    Bad Debt Expense..... 6,575  
                     Allowance for Doubtful Accounts  
                     (\$8,675 – \$2,100)..... 6,575
- (c) The total balance of receivables increased from 2013 to 2014. However, of concern is the fact that each of the three categories of older accounts increased substantially during 2014. That is, customers are taking longer to pay and bad debts are likely to increase. Management needs to investigate the causes of this change.

## EXERCISE 8-6

December 31, 2013		
Bad Debt Expense .....	9,500	
Allowance for Doubtful Accounts		
[(9% X \$90,000) + \$1,400] .....		9,500
May 11, 2014		
Allowance for Doubtful Accounts.....	1,200	
Accounts Receivable—Byrd .....		1,200
June 12, 2014		
Accounts Receivable—Byrd.....	1,200	
Allowance for Doubtful Accounts .....		1,200
Cash.....	1,200	
Accounts Receivable—Byrd .....		1,200

## EXERCISE 8-7

Nov. 1	Notes Receivable .....	60,000	
	Cash .....		60,000
Dec. 11	Notes Receivable .....	3,600	
	Sales Revenue .....		3,600
16	Notes Receivable .....	12,000	
	Accounts Receivable—M. Adcock .....		12,000
31	Interest Receivable .....	761	
	Interest Revenue* .....		761

\*Calculation of interest revenue:

Carr's note:	$\$60,000 \times 7\% \times 2/12$	= \$700
Kiner's note:	$3,600 \times 8\% \times 20/360$	= 16
Adcock's note:	$12,000 \times 9\% \times 15/360$	= <u>45</u>
Total accrued interest		= <u>\$761</u>

## EXERCISE 8-8

<b>2013</b>			
May 1	Notes Receivable .....	5,000	
	Accounts Receivable—S. Rooney .....		5,000
Dec. 31	Interest Receivable .....	200	
	Interest Revenue		
	(\$5,000 X 6% X 8/12) .....		200
<b>2014</b>			
May 1	Cash .....	5,300	
	Notes Receivable .....		5,000
	Interest Receivable .....		200
	Interest Revenue		
	(\$5,000 X 6% X 4/12) .....		100

## EXERCISE 8-9

**SHANNON CORP.**  
**Balance Sheet (Partial)**  
**October 31, 2014**  
**(in thousands)**

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<b>Receivables</b>		
Notes receivable .....	\$1,353	
Accounts receivable.....	2,910	
Other receivables.....	<u>189</u>	
Total receivables.....		\$4,452
Less: Allowance for doubtful accounts .....		<u>52</u>
Net receivables .....		<u>\$4,400</u>

## EXERCISE 8-10

- (a) 2. Reviewing company ratings in the *Dun and Bradstreet Reference Book of American Business*.
- (b) 3. Collecting information on competitors' payment period policies.
- (c) 4. Preparing monthly accounts receivable aging schedule and investigating problem accounts.
- (d) 5. Calculating the accounts receivable turnover ratio and average collection period.
- (e) 1. Selling receivables to a factor.

## EXERCISE 8-11

(a)

$$\text{Accounts receivable turnover ratio} = \frac{\$35,497}{(\$3,391 + \$4,359)/2} = 9.2 \text{ times}$$

$$\text{Average collection period} = \frac{365 \text{ days}}{9.2} = 39.7 \text{ days}$$

- (b) Accounts receivable comprise 48% (\$3,391/\$7,116) of the company's total current assets. This is certainly a material component.

## EXERCISE 8-11 (Continued)

- (c) The balance in the allowance account increased \$38 million (\$196 – \$158) while its accounts receivable decreased \$930 million (\$3,587 – \$4,517). As a result, the allowance for uncollectible accounts increased from 3.5% of accounts receivable in 2013 to 5.5% in 2014.

## EXERCISE 8-12

- (a) At first glance it appears that Lin's liquidity had deteriorated over the past year since the company's current ratio has fallen from 1.5:1 to 1.3:1. However, it is taking the company less time to collect its accounts receivable as evidenced by the higher accounts receivable turnover. The company also appears to be moving its inventory more quickly as evidenced by the higher inventory turnover. It is possible that the lower current ratio is due to the fact that with improved collections and inventory turnover, the company is carrying fewer current assets and not because the company's liquidity has deteriorated.
- (b) Changes in the turnover ratios do not directly affect profitability. However, improvements in turnover generally indicate that the company is better able to convert sales to cash. Improved liquidity could allow the company to better manage its cash flows and therefore, indirectly improve profitability.
- (c) There are several steps that Lin might have taken to improve its receivables and inventory turnover:

### Receivables

- The company could limit credit to only the best customers, however, this could negatively affect sales.
- The company could initiate the use of a cash discount to encourage early payment of receivables.
- The company could more aggressively monitor collections to encourage customers to pay on time.
- The company could sell its receivables to a factor to accelerate cash receipts.



## EXERCISE 8-12 (Continued)

### Inventory

- The company could limit the amount of inventory by improving its purchasing relationships with suppliers. If inventory could be purchased more frequently, required inventory levels could be reduced.
- Improvements in production processes could reduce the amount of work in process, thereby reducing inventory and improving the turnover ratio.
- Moving to a system whereby inventory is only produced as needed, will reduce the amount of finished goods inventory and improve the turnover ratio. However, there is some risk to this option as sales could be lost if stock-outs occur.

## EXERCISE 8-13

Mar. 3	Cash (\$710,000 – \$28,400) .....	681,600	
	Service Charge Expense (4% X \$710,000) .....	28,400	
	Accounts Receivable .....		710,000

## EXERCISE 8-14

One possible reason Office Depot chose to sell its receivables may have been to improve its financial ratios. Other reasons include not wanting to deal with the administration of collecting accounts or the desire to accelerate cash receipts.

## EXERCISE 8-15

May 10	Cash (\$4,000 – \$152) .....	3,848	
	Service Charge Expense (3.8% X \$4,000) .....	152	
	Sales Revenue .....		4,000

## EXERCISE 8-16

July 4	Cash (\$250 – \$10).....	240	
	Service Charge Expense (4% X \$250).....	10	
	Sales Revenue .....		250

## EXERCISE 8-17

(a)

Accounts Receivable			
Beg	38,000		
Sales	380,000	227,000	Collections
End	191,000		

or

$$\begin{array}{rclcl} \text{Sales} & - & \text{Increase in Receivables} & = & \text{Cash Collections} \\ \$380,000 & - & (\$191,000 - \$38,000) & = & \$227,000 \end{array}$$

- (b) The quality of earnings ratio is net cash provided by operating activities divided by net income. If accrual sales exceed cash collections, then net income will exceed net cash provided by operating activities, all else being equal. Therefore, this would cause a drop in the quality of earnings ratio.
- (c) If the company relaxed its credit requirements it should increase its estimated bad debts expense. If it doesn't do this, net income in the current period will likely be overstated.

# SOLUTIONS TO PROBLEMS

## PROBLEM 8-1A

**(a) Total estimated bad debts**

		Number of Days Outstanding				
	Total	0–30	31–60	61–90	91–120	Over 120
Accounts receivable	\$377,000	\$222,000	\$90,000	\$38,000	\$15,000	\$12,000
% uncollectible		1%	4%	5%	8%	10%
Estimated bad debts	\$10,120	\$2,220	\$3,600	\$1,900	\$1,200	\$1,200

<b>(b)</b>	Bad Debt Expense .....	14,120	
	Allowance for Doubtful Accounts		
	(\$10,120 + \$4,000) .....		14,120
<b>(c)</b>	Allowance for Doubtful Accounts .....	5,000	
	Accounts Receivable .....		5,000
<b>(d)</b>	Accounts Receivable .....	5,000	
	Allowance for Doubtful Accounts .....		5,000
	Cash .....	5,000	
	Accounts Receivable .....		5,000

- (e)** If Reynolds.com used 3% of total accounts receivable rather than aging the individual accounts, the bad debt expense adjustment would be \$15,310 [(\$377,000 X 3%) + \$4,000].

Aging the individual accounts rather than applying a percentage to the total accounts receivable should produce a more accurate allowance account and bad debts expense.

# PROBLEM 8-2A

(a)	1.	Accounts Receivable.....	2,500,000	
		Sales Revenue .....		2,500,000
	2.	Sales Returns and Allowances.....	50,000	
		Accounts Receivable.....		50,000
	3.	Cash .....	2,200,000	
		Accounts Receivable.....		2,200,000
	4.	Allowance for Doubtful Accounts .....	41,000	
		Accounts Receivable.....		41,000
	5.	Accounts Receivable.....	15,000	
		Allowance for Doubtful Accounts .....		15,000
		Cash .....	15,000	
		Accounts Receivable.....		15,000

(b)	Accounts Receivable				Allowance for Doubtful Accounts			
	Bal.	600,000	(2)	50,000	(4)	41,000	Bal.	37,000
	(1)	2,500,000	(3)	2,200,000			(5)	15,000
	(5)	15,000	(4)	41,000				
			(5)	15,000				
	Bal.	809,000					Bal.	11,000

(c)	Balance needed .....	\$46,000
	Balance before adjustment [See (b)] .....	<u>(11,000)</u>
	Adjustment required.....	<u>\$35,000</u>

The journal entry would therefore be as follows:

Bad Debt Expense .....	35,000	
Allowance for Doubtful Accounts.....		35,000

**PROBLEM 8-2A (Continued)**

$$(d) \quad \frac{\$2,500,000 - \$50,000}{(\$563,000^* + \$763,000^{**}) \div 2} = \frac{\$2,450,000}{\$663,000} = 3.7 \text{ times}$$

\*\$600,000 – \$37,000

\*\*\$809,000 – \$46,000

**The average collection period is:**

$$\frac{365 \text{ days}}{3.7} = 98.6 \text{ days}$$

<b>PROBLEM 8-3A</b>
---------------------

(a)	Dec. 31	Bad Debt Expense .....	34,400
		Allowance for Doubtful Accounts	
		(\$42,400 – \$8,000) .....	34,400

(a) & (b)

Bad Debt Expense		Allowance for Doubtful Accounts	
12/31	34,400	2013	12/31 Bal. 8,000
12/31	Bal. 34,400		12/31 34,400
			12/31 Bal. 42,400
		2014	
		3/1	5/1 600

(b)

		2014	
(1)	Mar. 1	Allowance for Doubtful Accounts .....	600
		Accounts Receivable.....	600
(2)	May 1	Accounts Receivable.....	600
		Allowance for Doubtful	
		Accounts .....	600
	1	Cash .....	600
		Accounts Receivable.....	600

(c)

		2014	
Dec. 31	Bad Debt Expense .....		38,100
		Allowance for Doubtful Accounts	
		(\$36,700 + \$1,400) .....	38,100

<b>PROBLEM 8-4A</b>
---------------------

- (a) \$37,000.**
- (b) \$30,600  $[(\$840,000 \times 4\%) - \$3,000]$ .**
- (c) \$34,600  $[(\$840,000 \times 4\%) + \$1,000]$ .**
- (d) There are two major weaknesses with the direct write-off method. First, it does not match expenses with revenues. Second, the accounts receivable are not stated at cash realizable value at the balance sheet date.**

<b>PROBLEM 8-5A</b>
---------------------

(a)	Dec. 31	Bad Debt Expense (\$10,200 – \$1,500).....	8,700	
		Allowance for Doubtful Accounts .....		8,700

(b)	Dec. 31	Bad Debt Expense (\$10,200 + \$1,500).....	11,700	
		Allowance for Doubtful Accounts .....		11,700

(c)		Allowance for Doubtful Accounts .....	2,100	
		Accounts Receivable.....		2,100

(d)		Bad Debt Expense .....	2,100	
		Accounts Receivable.....		2,100

(e) The advantages of the allowance method over the direct write-off method are:

1. It attempts to match bad debts expense related to uncollectible accounts receivable with sales revenues on the income statement.
2. It attempts to show the cash realizable value of the accounts receivable on the balance sheet.



<b>PROBLEM 8-6A</b>
---------------------

Jan. 5	Accounts Receivable—Ross Company .....	4,000	
	Sales Revenue.....		4,000
Feb. 2	Notes Receivable .....	4,000	
	Accounts Receivable—Ross Company ..		4,000
12	Notes Receivable .....	12,000	
	Sales Revenue.....		12,000
26	Accounts Receivable—Meachum Co .....	5,200	
	Sales Revenue.....		5,200
Apr. 5	Notes Receivable. ....	5,200	
	Accounts Receivable—Meachum Co .....		5,200
12	Cash (\$12,000 + \$200).....	12,200	
	Notes Receivable .....		12,000
	Interest Revenue		
	(\$12,000 X 10% X 2/12).....		200
June 2	Cash (\$4,000 + \$120).....	4,120	
	Notes Receivable .....		4,000
	Interest Revenue (\$4,000 X 9% X 4/12)....		120
June 15	Notes Receivable .....	2,000	
	Sales Revenue.....		2,000

**PROBLEM 8-7A**

	<b>Transaction</b>	<b>Current Ratio (2:1)</b>	<b>Accounts Receivable Turnover (10X)</b>	<b>Average Collection Period (36.5 days)</b>
1.	Recorded cash sale.	I	NE	NE
2.	Recorded bad debts expense. Use allowance method	D	I	D
3.	Wrote off an account receivable as uncollectible. Use allowance method	NE	NE	NE
4.	Recorded sales on account.	I	D	I

**PROBLEM 8-8A**

(a)	July	5	Accounts Receivable .....	4,500	
			Sales Revenue .....		4,500
		14	Cash (\$600 – \$18) .....	582	
			Service Charge Expense (\$600 X 3%) .....	18	
			Sales Revenue .....		600
		20	Cash .....	6,120	
			Notes Receivable .....		6,000
			Interest Revenue		
			(\$6,000 X 8% X 90/360) .....		120
		24	Cash .....	7,930	
			Notes Receivable .....		7,800
			Interest Revenue		
			(\$7,800 X 10% X 60/360) .....		130
		31	Interest Receivable .....	50	
			Interest Revenue		
			(\$10,000 X 6% X 1/12) .....		50

(b)

Notes Receivable			
7/1 Bal.	23,800	7/20	6,000
		7/24	7,800
7/31 Bal.	10,000		

Interest Receivable		
7/31	50	
7/31 Bal.	50	

Accounts Receivable		
7/5	4,500	
7/31 Bal.	4,500	

**PROBLEM 8-8A (Continued)**

**KOLTON COMPANY**  
**Balance Sheet (Partial)**  
**July 31, 201X**

---

**(c) Current assets**

Notes receivable .....	<b>\$10,000</b>
Accounts receivable.....	<b>4,500</b>
Interest receivable .....	<b><u>50</u></b>
Total receivables.....	<b><u>\$14,550</u></b>

# **PROBLEM 8-9A**

	Nike	Adidas
Accounts receivable turnover	$\frac{\$19,176.1}{(\$2,795.3^a + \$2,883.9^b)/2}$ $\frac{\$19,176.1}{\$2,839.6} = 6.8 \text{ times}$	$\frac{\$10,381}{(\$1,624^c + \$1,429^d)/2}$ $\frac{\$10,381}{\$1,526.5} = 6.8 \text{ times}$

$$^a 2,873.7 - 78.4$$

$$^b 2,994.7 - 110.8$$

$$^c 1,743 - 119$$

$$^d 1,553 - 124$$

Average collection period	$\frac{365}{6.8} = 53.7 \text{ days}$	$\frac{365}{6.8} = 53.7 \text{ days}$
---------------------------	---------------------------------------	---------------------------------------

**Both companies have the same turnover ratios and average collection periods.**

# SOLUTIONS TO PROBLEMS—SET B

## PROBLEM 8-1B

**(a) Total estimated bad debts**

		Number of Days Outstanding				
	Total	0–30	31–60	61–90	91–120	Over 120
Accounts receivable	\$305,000	\$107,000	\$60,000	\$50,000	\$38,000	\$50,000
% uncollectible		2%	5%	7.5%	10%	25%
Estimated bad debts	\$25,190	\$2,140	\$3,000	\$3,750	\$3,800	\$12,500

**(b) Bad Debt Expense..... 18,190**  
     **Allowance for Doubtful Accounts**  
     **[\$25,190 – \$7,000]..... 18,190**

**(c) Allowance for Doubtful Accounts..... 2,600**  
     **Accounts Receivable..... 2,600**

**(d) Accounts Receivable ..... 1,200**  
     **Allowance for Doubtful Accounts ..... 1,200**

**Cash ..... 1,200**  
     **Accounts Receivable..... 1,200**

**(e) When an allowance account is used, an adjusting journal entry is made at the end of each accounting period. This entry satisfies the expense recognition principle by recording the bad debts expense in the period in which the sales occur.**

<b>PROBLEM 8-2B</b>
---------------------

(a)	1.	Accounts Receivable .....	3,600,000	
		Sales Revenue.....		3,600,000
	2.	Sales Returns and Allowances .....	150,000	
		Accounts Receivable.....		150,000
	3.	Cash .....	3,100,000	
		Accounts Receivable.....		3,100,000
	4.	Allowance for Doubtful Accounts .....	92,000	
		Accounts Receivable.....		92,000
	5.	Accounts Receivable .....	28,000	
		Allowance for Doubtful Accounts .....		28,000
		Cash .....	28,000	
		Accounts Receivable.....		28,000

(b)	<b>Accounts Receivable</b>				<b>Allowance for Doubtful Accounts</b>			
	Bal.	960,000	(2)	150,000	(4)	92,000	Bal.	78,000
	(1)	3,600,000	(3)	3,100,000			(5)	28,000
	(5)	28,000	(4)	92,000			Bal.	14,000
			(5)	28,000				
	Bal.	1,218,000						

(c)	Balance needed .....	\$140,000
	Balance before adjustment [see (b)] .....	<u>(14,000)</u>
	Adjustment required .....	<u>\$126,000</u>

The journal entry would therefore be as follows:

Bad Debt Expense .....	126,000	
Allowance for Doubtful Accounts.....		126,000

## PROBLEM 8-2B (Continued)

$$(d) \quad \frac{\$3,600,000 - \$150,000}{(\$882,000^* + \$1,078,000^{**}) \div 2} = \frac{\$3,450,000}{\$980,000} = 3.5 \text{ times}$$

\*\$960,000 – \$78,000

\*\*\$1,218,000 – \$140,000

Its average collection period is:  $\frac{365 \text{ days}}{3.5} = 104.3 \text{ days}$



<b>PROBLEM 8-3B</b>
---------------------

(a)	Dec. 31	Bad Debt Expense.....	24,480
		Allowance for Doubtful Accounts	
		(\$33,480 – \$9,000) .....	24,480

(a) & (b)

Bad Debt Expense			Allowance for Doubtful Accounts		
12/31	24,480		2013	12/31 Bal.	9,000
12/31	Bal. 24,480			12/31	24,480
				12/31 Bal.	33,480
			2014		
			2/1	900	900
				7/1	900

(b)		2014		
(1)	Feb. 1	Allowance for Doubtful Accounts.....	900	
		Accounts Receivable .....		900
(2)	July 1	Accounts Receivable .....	900	
		Allowance for Doubtful		
		Accounts .....		900
	1	Cash .....	900	
		Accounts Receivable .....		900

(c)		2014		
Dec. 31		Bad Debt Expense.....	33,400	
		Allowance for Doubtful Accounts		
		(\$30,600 + \$2,800) .....		33,400

<b>PROBLEM 8-4B</b>
---------------------

- (a) \$15,000.**
- (b) \$16,300  $[(\$500,000 \times 4\%) - \$3,700]$ .**
- (c) \$22,000  $[(\$500,000 \times 4\%) + \$2,000]$ .**
- (d) The weakness of the direct write-off method is twofold. First, it does not match expenses with revenues. Second, the accounts receivable are not stated at cash realizable value at the balance sheet date.**

<b>PROBLEM 8-5B</b>
---------------------

(a)	Dec. 31	<b>Bad Debt Expense (\$7,600 – \$2,800) .....</b> <b>Allowance for Doubtful</b> <b>Accounts .....</b>	<b>4,800</b>   <b>4,800</b>
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(b)	Dec. 31	<b>Bad Debt Expense (\$7,600 + \$2,500) .....</b> <b>Allowance for Doubtful</b> <b>Accounts .....</b>	<b>10,100</b>   <b>10,100</b>
-----	---------	---	--

(c)		<b>Allowance for Doubtful Accounts .....</b> <b>Accounts Receivable .....</b>	<b>750</b>  <b>750</b>
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(d)		<b>Bad Debt Expense .....</b> <b>Accounts Receivable .....</b>	<b>750</b>  <b>750</b>
-----	--	---	------------------------------

(e) The advantages of the allowance method over the direct write-off method are:

- (1) It attempts to match bad debt expense related to uncollectible accounts receivable with sales revenue on the income statement.
- (2) It attempts to show the cash realizable value of the accounts receivable on the balance sheet.

<b>PROBLEM 8-6B</b>
---------------------

Jan. 5	Accounts Receivable—Flynn Company .....	10,000	
	Sales Revenue .....		10,000
20	Notes Receivable.....	10,000	
	Accounts Receivable— Flynn Company.....		10,000
Feb. 18	Notes Receivable.....	4,000	
	Sales Revenue .....		4,000
Apr. 20	Cash (\$10,000 + \$150) .....	10,150	
	Notes Receivable.....		10,000
	Interest Revenue (\$10,000 X 6% X 3/12) .....		150
30	Cash (\$12,000 + \$360) .....	12,360	
	Notes Receivable.....		12,000
	Interest Revenue (\$12,000 X 9% X 4/12) .....		360
May 25	Notes Receivable.....	9,000	
	Accounts Receivable—Creech Inc .....		9,000
Aug. 18	Cash (\$4,000 + \$160) .....	4,160	
	Notes Receivable.....		4,000
	Interest Revenue (\$4,000 X 8% X 6/12) .....		160
Sept. 1	Notes Receivable.....	5,000	
	Sales Revenue .....		5,000

**PROBLEM 8-7B**

	<b>Transaction</b>	<b>Current Ratio (2:1)</b>	<b>Accounts Receivable Turnover (10X)</b>	<b>Average Col- lection Period (36.5 days)</b>
1.	Recorded sales on account.	I	D	I
2.	Recorded bad debts expense. Use allowance method.	D	I	D
3.	Wrote off an account receivable as uncollectible. Use allowance method.	NE	NE	NE
4.	Collected an account receivable that had been written off.	NE	I	D

<b>PROBLEM 8-8B</b>
---------------------

(a)	Oct.	7	Accounts Receivable .....	4,600	
			Sales Revenue .....		4,600
		12	Cash (\$600 – \$18) .....	582	
			Service Charge Expense		
			(\$600 X 3%).....	18	
			Sales Revenue .....		600
		15	Cash.....	10,100	
			Notes Receivable .....		10,000
			Interest Revenue		
			(\$10,000 X 6% X 60/360) .....		100
		25	Cash.....	3,035	
			Notes Receivable .....		3,000
			Interest Revenue		
			(\$3,000 X 7% X 2/12) .....		35
		31	Interest Receivable.....	49	
			Interest Revenue		
			(\$9,800 X 6% X 1/12) .....		49

(b)

Notes Receivable				Interest Receivable			
10/1 Bal.	22,800	10/15	10,000	10/31	49		
		10/25	3,000				
10/31 Bal.	9,800			10/31 Bal.	49		

  

Accounts Receivable			
10/7	4,600		
10/31 Bal.	4,600		

**PROBLEM 8-8B (Continued)**

**DURHAN COMPANY**  
**Balance Sheet (Partial)**  
**October 31, 2014**

---

**(c) Current assets**

Notes receivable.....	<b>\$ 9,800</b>
Accounts receivable .....	<b>4,600</b>
Interest receivable.....	<b><u>49</u></b>
Total receivables .....	<b><u>\$14,449</u></b>

# **PROBLEM 8-9B**

	Redbird Sportswear	Carwright Company
Accounts receivable turnover	$\frac{\$1,200}{(\$286.6^a + \$299.8^b)/2}$ $\frac{\$1,200}{\$293.2} = 4.1 \text{ times}$	$\frac{\$1,350}{(\$204.0^c + \$188.1^d)/2}$ $\frac{\$1,350}{\$196.1} = 6.9 \text{ times}$
<sup>a</sup> \$293.3 – \$ 6.7		
<sup>b</sup> \$307.2 – \$ 7.4		
<sup>c</sup> \$216.5 – \$12.5		
<sup>d</sup> \$202.9 – \$14.8		
Average collection period	$\frac{365}{4.1} = 89.0 \text{ days}$	$\frac{365}{6.9} = 52.9 \text{ days}$

Carwright's accounts receivable turnover was over 68% higher  $[(6.9 - 4.1) \div 4.1]$  than Redbird's, which means that Carwright was significantly more efficient than Redbird in turning accounts receivables into cash.



## COMPREHENSIVE PROBLEM SOLUTION

(a) Jan. 1	Notes Receivable .....	1,200	
	Accounts Receivable— Matheny Company.....		1,200
3	Allowance for Doubtful Accounts.....	730	
	Accounts Receivable .....		730
8	Inventory .....	17,200	
	Accounts Payable.....		17,200
11	Accounts Receivable .....	25,000	
	Sales Revenue .....		25,000
	Cost of Goods Sold.....	17,500	
	Inventory .....		17,500
15	Cash .....	970	
	Service Charge Expense .....	30	
	Sales Revenue .....		1,000
	Cost of Goods Sold.....	700	
	Inventory .....		700
17	Cash .....	22,900	
	Accounts Receivable .....		22,900
21	Accounts Payable .....	16,300	
	Cash.....		16,300
24	Accounts Receivable .....	280	
	Allowance for Doubtful Accounts.....		280
	Cash .....	280	
	Accounts Receivable .....		280
27	Supplies .....	1,400	
	Cash.....		1,400
31	Other Operating Expenses.....	3,218	
	Cash.....		3,218

## COMPREHENSIVE PROBLEM SOLUTION (Continued)

### Adjusting Entries

Jan. 31	Interest Receivable .....	8	
	Interest Revenue ( $\$1,200 \times 8\% \times 1/12$ ) .....		8
31	Bad Debt Expense [ $(\$19,950 \times 6\%) - (\$800 - \$730 + \$280)$ ] .....	847	
	Allowance for Doubtful Accounts .....		847
31	Supplies Expense .....	840	
	Supplies ( $\$1,400 - \$560$ ) .....		840
31	Income Tax Expense .....	862	
	Income Taxes Payable		
	[ $\$2,873$ (See c) $\times 30\%$ ] .....		862

(b) **MADSON CORPORATION**  
Adjusted Trial Balance  
January 31, 2014

	Debit	Credit
Cash .....	\$16,332	
Notes Receivable .....	1,200	
Accounts Receivable .....	19,950	
Allowance for Doubtful Accounts .....		\$ 1,197
Interest Receivable .....	8	
Inventory .....	8,400	
Supplies .....	560	
Accounts Payable .....		9,650
Income Taxes Payable .....		862
Common Stock .....		20,000
Retained Earnings .....		12,730
Sales Revenue .....		26,000
Cost of Goods Sold .....	18,200	
Supplies Expense .....	840	
Bad Debt Expense .....	847	
Service Charge Expense .....	30	
Other Operating Expenses .....	3,218	
Interest Revenue .....		8
Income Tax Expense .....	862	
	<u>\$70,447</u>	<u>\$70,447</u>

## COMPREHENSIVE PROBLEM SOLUTION (Continued)

### (b) Optional T accounts for accounts with multiple transactions

Cash			
1/1 Bal.	13,100	1/21	16,300
1/15	970	1/27	1,400
1/17	22,900	1/31	3,218
1/24	280		
1/31 Bal.	16,332		

Accounts Receivable			
1/1 Bal.	19,780	1/1	1,200
1/11	25,000	1/3	730
1/24	280	1/17	22,900
		1/24	280
1/31 Bal.	19,950		

Allowance for Doubtful Accounts			
1/3	730	1/1 Bal.	800
		1/24	280
		1/31	847
		1/31 Bal.	1,197

Inventory			
1/1 Bal.	9,400	1/11	17,500
1/8	17,200	1/15	700
1/31 Bal.	8,400		

Supplies			
1/27	1,400	1/31	840
1/31 Bal.	560		

Accounts Payable			
1/21	16,300	1/1 Bal.	8,750
		1/8	17,200
		1/31 Bal.	9,650

Sales Revenue			
		1/11	25,000
		1/15	1,000
		1/31 Bal.	26,000

Cost of Goods Sold			
1/11	17,500		
1/15	700		
1/31 Bal.	18,200		

## COMPREHENSIVE PROBLEM SOLUTION (Continued)

(c) **MADSON CORPORATION**  
**Income Statement**  
**For the Month Ending January 31, 2014**

Sales revenue .....		<b>\$26,000</b>
Cost of goods sold .....		<b><u>18,200</u></b>
Gross profit .....		<b>7,800</b>
Operating expenses .....		
Other operating expenses .....	<b>\$3,218</b>	
Bad debt expense .....	<b>847</b>	
Supplies expense .....	<b>840</b>	
Service charge expense .....	<b><u>30</u></b>	
Total operating expenses .....		<b><u>4,935</u></b>
Income from operations .....		<b>2,865</b>
Other revenues and gains .....		
Interest revenue .....		<b><u>8</u></b>
Income before taxes .....		<b>2,873</b>
Income tax expense (\$2,873 X 30%) .....		<b><u>862</u></b>
Net income .....		<b><u><u>\$ 2,011</u></u></b>

## COMPREHENSIVE PROBLEM SOLUTION (Continued)

### MADSON CORPORATION Retained Earnings Statement For the Month Ending January 31, 2014

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Retained earnings, January 1 .....	\$12,730
Add: Net income .....	<u>2,011</u>
Retained earnings, January 31 .....	<u>\$14,741</u>

### MADSON CORPORATION Balance Sheet January 31, 2014

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#### Assets

##### Current assets

Cash.....		\$16,332
Notes receivable .....		1,200
Accounts receivable.....	\$19,950	
Less: Allowance for doubtful accounts .....	<u>1,197</u>	18,753
Interest receivable .....		8
Inventory .....		8,400
Supplies .....		<u>560</u>
Total assets .....		<u>\$45,253</u>

#### Liabilities and Stockholders' Equity

##### Current liabilities

Accounts payable.....	\$ 9,650	
Income taxes payable .....	<u>862</u>	
Total liabilities .....		\$10,512
Stockholders' equity		
Common stock .....	\$20,000	
Retained earnings .....	<u>14,741</u>	
Total stockholders' equity .....		<u>34,741</u>
Total liabilities and stockholders' equity .....		<u>\$45,253</u>

- (a) **Accounts receivable turnover**
- $$\begin{aligned} & \frac{\text{2011}}{\$528,369} \\ &= (\$41,895 + \$37,394) \div 2 \\ &= \frac{\$528,369}{\$39,644.5} = 13.3 \text{ times} \end{aligned}$$
- Average collection period** =  $\frac{365}{13.3} = 27.4 \text{ days}$
- (b) Note 1 states that revenue from a major customer exceeded 20% of net product sales in recent years. Note 9 reports significant foreign sales, primarily Mexico and Canada. Material sales to a single customer could create potential credit risk problems.
- (c) At 27.4 days, Tootsie Roll's average collection period appears reasonable. It should be compared to its credit terms (normally 30 days) and to previous years to determine whether it is of concern.

**(a) (1) Accounts receivable turnover ratio**

<b>Tootsie Roll</b>	<b>Hershey Company</b>
<b>\$528,369</b>	<b>\$6,080,788</b>
<b><math>(\\$41,895 + \\$37,394) \div 2</math></b>	<b><math>(\\$399,499 + \\$390,061) \div 2</math></b>
<b><math>\frac{\\$528,369}{\\$39,644.5} = 13.3 \text{ times}</math></b>	<b><math>\frac{\\$6,080,788}{\\$394,780} = 15.4 \text{ times}</math></b>

**(2) Average collection period**

$\frac{365}{13.3} = 27.4 \text{ days}$	$\frac{365}{15.4} = 23.7 \text{ days}$
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- (b) The general rule for the average collection period is that it should not greatly exceed the credit term period. Tootsie Roll's average collection period (approximately 27 days) is shorter than the normal credit term period of 30 days but is worse than Hershey Company's 24 day average collection period.**

- (a) InBev told its suppliers that it would take up to 120 days to pay. This is compared to 30 days previously.**
- (b) To free up cash, General Electric shortened collection times, collected on past-due accounts, and stretched out its payments to suppliers. By doing this the company says that it freed up \$3.8 billion.**
- (c) Companies with sales of more than \$5 billion took an average of 55.8 days to pay suppliers and they took an average of 41 days to collect from customers. Companies with sales of less than \$500 million took an average of 40.1 days to pay suppliers and they took an average of 58.9 days to collect from customers.**
- (d) If a company negotiates payment terms that are too severe for its suppliers, the suppliers may be forced out of business. This can then disrupt the company's operations as it searches for substitute suppliers.**



(a) **Accounts receivable turnover**  $= \frac{\$2,981.8}{(\$259.8^* + \$248.3^{**})/2} = 11.7 \text{ times}$

\*\$270.4 – \$10.6

\*\*\$259.7 – \$11.4

**Average collection period**  $= \frac{365 \text{ days}}{11.7} = 31.2 \text{ days}$

- (b) **Accounts receivable represent 24.9% [(\$270.4 – \$10.6)/\$1,044.9] of the company's current assets. This is a material amount of the current assets.**
- (c) **The ratios would probably vary throughout the year as receivables increase during the busy season and decrease in the "off" season. To improve the accuracy of the ratio, average receivables should be calculated using monthly or quarterly data, rather than just the beginning and ending balance.**
- (d) **It is difficult to evaluate Scotts' credit risk with only a single year's data and no industry norms. An average collection period of 31.2 days may be reasonable for the type of customers that make up Scotts' receivables.**

**Scotts explained that a majority of its receivables were from its North American Consumer segment. Within this segment, there were several subgroups (i.e., home centers, mass merchandisers, hardware stores). The note explains that its top 3 customers accounted for 48% of its total receivables from the North American consumer business. In addition its two largest customers accounted for more than 34% of its net sales. These facts indicate a higher degree of credit risk than having numerous smaller customers.**

## **BYP 8-4 (Continued)**

- (e) Note 19 addressed the issues that surround credit risk. It provided the reader with at least a moderate degree of “comfort” that Scotts’ accounts receivable and allowance policies were acceptable. The note also appears to comply with the full disclosure principle required under GAAP. It does not, however, disclose what the company’s credit exposure is to any individual customers. This would be of interest, since some of its customers are probably very large. As noted in part (d), having the receivables balance spread across multiple customers is usually less risky than having a few large customers.

- (a) Factoring invoices enhances cash flow and allows a company to meet business expenses and take on new opportunities. The benefits of factoring include:
- Predictable cash flow and elimination of slow payments
  - Flexible financing, as factoring line is tied to sales. It's the ideal tool for growth
  - Factoring is easy to obtain. Works well with startups and established companies
  - Factoring financing lines can be setup in a few days
- (b) Factoring rates range between 1.5% and 3.5% per month. The two major variables considered when determining the rate are: (1) the size of the transaction, and (2) the credit quality of the company's clients .
- (c) The first installment is paid within a couple of days and is typically 90% of the invoice amount. After customers pay the invoice amount to the factor, the second installment (10%) is paid, less a fee for the transaction.

(a)

	<u>2014</u>	<u>2013</u>	<u>2012</u>
Net credit sales .....	<u>\$500,000</u>	<u>\$600,000</u>	<u>\$400,000</u>
Credit and collection expenses			
Collection agency fees.....	\$ 2,900	\$ 2,600	\$ 1,600
Salary of accounts receivable clerk.....	4,400	4,400	4,400
Uncollectible accounts .....	8,000	9,600	6,400
Billing and mailing costs .....	2,500	3,000	2,000
Credit investigation fees.....	1,000	1,200	800
Total .....	<u>\$ 18,800</u>	<u>\$ 20,800</u>	<u>\$ 15,200</u>
Total expenses as a percentage of net credit sales .....	<u>3.8%</u>	<u>3.5%</u>	<u>3.8%</u>

(b)	Average accounts receivable (5%) ...	<u>\$ 25,000</u>	<u>\$ 30,000</u>	<u>\$ 20,000</u>
	Investment earnings (10%) .....	<u>\$ 2,500</u>	<u>\$ 3,000</u>	<u>\$ 2,000</u>
	Total credit and collection expense per above.....	\$ 18,800	\$ 20,800	\$ 15,200
	Add: Investment earnings* .....	2,500	3,000	2,000
	Net credit and collection expense ....	<u>\$ 21,300</u>	<u>\$ 23,800</u>	<u>\$ 17,200</u>
	Net expenses as a percentage of net sales .....	<u>4.3%</u>	<u>4.0%</u>	<u>4.3%</u>

\*The investment earnings on the cash tied up in accounts receivables is an additional expense of continuing the existing credit policies.

- (c) The analysis shows that the credit card fee of 4% of net credit sales will be higher than the percentage cost of credit and collection expenses in each year before considering the effect of earnings from other investment opportunities. However, after considering investment earnings, the credit card fee of 4% will be less than or equal to the company's percentage cost.

## **BYP 8-6 (Continued)**

**Finally, the decision hinges on (1) the accuracy of investment earnings, (2) the expected trend in credit sales, and (3) the effect the new policy will have on sales. Nonfinancial factors include the effects on customer relationships of the alternative credit policies and whether the Falcons want to continue with the handling of their own accounts receivable.**

**To:** John Doe, President

**From:** Mary Jane, Student

**Re:** Improving debt-paying ability

**Date:** September 14, 2014

The first step that should be taken to improve your company's debt-paying ability is to accelerate collections of your accounts receivable. The current credit policy (i.e., "pay when they can") encourages slow payment from credit customers. Most companies have a 30-day credit period with finance charges applied on late payments. You may also want to consider adopting a discount period which allows customers a reduction in the amount owed if payment is made within a specified time period.

Measuring success in improving collections can be done by monitoring collections and evaluating the receivables balance. Monitoring collections is done by preparing an accounts receivable aging schedule on a monthly basis. Evaluating receivables is accomplished by computing an accounts receivable turnover and an average collection period.

Another step that can be taken with receivables to ease your company's liquidity problems is to sell the receivables to another company for cash. Selling receivables to another company (called a factor) shortens the cash-to-cash operating cycle. It should be pointed out that factors normally charge a commission of 1% to 3%.

Hopefully this memo addresses the questions you have on improving your company's debt-paying ability. Please contact me if you have any questions or need additional information.

- (a) The stakeholders in this situation are:
- The president of Ortiz Corp.
  - The controller of Ortiz Corp.
  - The stockholders of Ortiz Corp.
- (b) Yes. The controller is posed with an ethical dilemma—should he/she follow the president’s “suggestion” and prepare misleading financial statements (understated net income) or should he/she attempt to stand up to and possibly anger the president by preparing a fair (realistic) income statement.
- (c) No. Ortiz Corp.’s growth rate should be a product of fair and accurate financial statements, not vice versa. That is, one should not prepare financial statements with the objective of achieving or sustaining a predetermined growth rate. The growth rate should be a product of management and operating results, not of creative accounting.

- (a) There are a number of sources that compare features of credit cards. Here are three: [www.creditcards.com/](http://www.creditcards.com/), [www.federalreserve.gov/pubs/shop/](http://www.federalreserve.gov/pubs/shop/), and [www.creditorweb.com/](http://www.creditorweb.com/).**
- (b) Here are some of the features you should consider: annual percentage rate, credit limit, annual fees, billing and due dates, minimum payment, penalties and fees, premiums received (airlines miles, hotel discounts etc.), and cash rebates.**
- (c) Answer depends on present credit card and student's personal situation.**



- (a) Receivables represent contractual rights to receive money on fixed or determinable dates, whether or not there is any stated provision for interest. Receivables may arise from credit sales, loans, or other transactions. Receivables may be in the form of loans, notes, and other types of financial instruments and may be originated by an entity or purchased from another entity. (Codification reference 310-10-05-4).
- (b) The conditions under which receivables exist usually involve some degree of uncertainty about their collectibility, in which case a contingency exists.

Subtopic 450-20 requires recognition of a loss when both of the following conditions are met:

- a. Information available prior to issuance of the financial statements indicates that it is probable that an asset has been impaired at the date of the financial statements.
- b. The amount of the loss can be reasonably estimated.

Losses from uncollectible receivables shall be accrued when both the preceding conditions are met. Those conditions may be considered in relation to individual receivables or in relation to groups of similar types of receivables. If the conditions are met, accrual shall be made even though the particular receivables that are uncollectible may not be identifiable. (Codification reference 310-10-35-7, 35-8-35-9).

**FASB and IASB have both worked toward reporting financial instruments at fair value. Both require disclosure of fair value information in notes to financial statements and both permit (but do not require) companies to record some types of financial instruments at fair value.**

**IFRS requires that specific loans and receivables be reviewed for impairment and then all loans and receivables as a group be reviewed. This “two-tiered” approach is not used by the FASB. IFRS and GAAP also differ in the criteria used to derecognize receivables. IFRS considers risks and rewards as well as loss of control over the receivables sold or factored. GAAP uses only the loss of control as its criteria. In addition, IFRS allows partial derecognition but GAAP does not.**

- (a) Zetar indicated that a later Easter contributed to a £5.9m increase in receivables due from customers compared to the previous year.**
- (b) Note 3.14 states that loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market.**
- (c) Note 18 reports that £35 of trade receivables were written off (utilized) during 2011.**
- (d) Note 18 indicates that the provision for impairment of receivables was £65 or 0.3% of trade receivables for 2011. In 2010, the provision was £95 or 0.6% of trade receivables. This decrease signals that Zetar is having less difficulty collecting its receivables. It is also interesting to note that trade receivables increased 32% from £16,790 in 2010 to £22,145 in 2011.**

