

# CHAPTER 9

## RECEIVABLES

### DISCUSSION QUESTIONS

1. Receivables are normally classified as (1) accounts receivable, (2) notes receivable, or (3) other receivables.
2. Elite Hardware should use the direct write-off method because it is a small business that has a relatively small number and volume of accounts receivable.
3. Contra asset, credit balance
4. The accounts receivable and allowance for doubtful accounts may be reported at a net amount of \$443,700 (\$471,200 – \$27,500) in the Current Assets section of the balance sheet. In this case, the amount of the allowance for doubtful accounts should be shown separately in a note to the financial statements or in parentheses on the balance sheet. Alternatively, the accounts receivable may be shown at the gross amount of \$471,200 less the amount of the allowance for doubtful accounts of \$27,500, thus yielding net accounts receivable of \$443,700.
5. (1) The percentage rate used is excessive in relationship to the volume of accounts written off as uncollectible; hence, the balance in the allowance is excessive.
- (2) A substantial volume of old uncollectible accounts is still being carried in the accounts receivable account.
6. An estimate based on analysis of receivables provides the most accurate estimate of the current net realizable value.
7. a. Kearny Company  
b. Notes Receivable
8. The interest will amount to \$6,000 only if the note is payable one year from the date it was created. The usual practice is to state the interest rate in terms of an annual rate, rather than in terms of the period covered by the note.
9. Debit Accounts Receivable  
Credit Notes Receivable  
Credit Interest Revenue
10. Cash ..... 61,155  
Accounts Receivable ... 60,750  
Interest Revenue ..... 405  
(\$60,750 × 30/360  
× 8% = \$405).

## PRACTICE EXERCISES

### PE 9–1A

Jan.	17	Cash .....	250	
		Bad Debt Expense .....	750	
		Accounts Receivable—Ian Kearns .....		1,000
Apr.	6	Accounts Receivable—Ian Kearns .....	750	
		Bad Debt Expense .....		750
	6	Cash .....	750	
		Accounts Receivable—Ian Kearns .....		750

### PE 9–1B

July	7	Cash .....	500	
		Bad Debt Expense .....	2,000	
		Accounts Receivable—Betty Williams .....		2,500
Nov.	13	Accounts Receivable—Betty Williams .....	2,000	
		Bad Debt Expense .....		2,000
	13	Cash .....	2,000	
		Accounts Receivable—Betty Williams .....		2,000

### PE 9–2A

Jan.	17	Cash .....	250	
		Allowance for Doubtful Accounts .....	750	
		Accounts Receivable—Ian Kearns .....		1,000
Apr.	6	Accounts Receivable—Ian Kearns .....	750	
		Allowance for Doubtful Accounts .....		750
	6	Cash .....	750	
		Accounts Receivable—Ian Kearns .....		750

**PE 9–2B**

July	7	Cash .....	500	
		Allowance for Doubtful Accounts .....	2,000	
		Accounts Receivable—Betty Williams .....		2,500
Nov.	13	Accounts Receivable—Betty Williams .....	2,000	
		Allowance for Doubtful Accounts .....		2,000
	13	Cash .....	2,000	
		Accounts Receivable—Betty Williams .....		2,000

**PE 9–3A**

a. \$22,500 ( $\$4,500,000 \times 0.005$ )

	<u>Adjusted Balance</u>
b. Accounts Receivable .....	\$325,000
Allowance for Doubtful Accounts ( $\$3,900 + \$22,500$ ) ....	26,400
Bad Debt Expense .....	22,500
c. Net realizable value ( $\$325,000 - \$26,400$ ) .....	\$298,600

**PE 9–3B**

a. \$80,000 ( $\$32,000,000 \times 0.0025$ )

	<u>Adjusted Balance</u>
b. Accounts Receivable .....	\$2,500,000
Allowance for Doubtful Accounts ( $\$80,000 - \$9,000$ ) .....	71,000
Bad Debt Expense .....	80,000
c. Net realizable value ( $\$2,500,000 - \$71,000$ ) .....	\$2,429,000

**PE 9–4A**

a. \$21,100 (\$25,000 – \$3,900)

	<u>Adjusted Balance</u>
b. Accounts Receivable .....	\$325,000
Allowance for Doubtful Accounts .....	25,000
Bad Debt Expense.....	21,100
c. Net realizable value (\$325,000 – \$25,000) .....	\$300,000

**PE 9–4B**

a. \$85,000 (\$76,000 + \$9,000)

	<u>Adjusted Balance</u>
b. Accounts Receivable .....	\$2,500,000
Allowance for Doubtful Accounts .....	76,000
Bad Debt Expense.....	85,000
c. Net realizable value (\$2,500,000 – \$76,000) .....	\$2,424,000

**PE 9–5A**

a. The due date for the note is October 8, determined as follows:

September.....	22 days (30 – 8)
October .....	8 days
Total.....	<u>30 days</u>

b. \$90,300 [\$90,000 + (\$90,000 × 4% × 30/360)]

c. Oct. 8 Cash .....	90,300	
Notes Receivable .....		90,000
Interest Revenue .....		300

## PE 9–5B

- a. The due date for the note is July 25, determined as follows:

March.....	4 days (31 – 27)
April.....	30 days
May.....	31 days
June.....	30 days
July.....	25 days
Total.....	<u>120 days</u>

- b. \$152,500 [ $\$150,000 + (\$150,000 \times 5\% \times 120/360)$ ]

c. July 25 Cash .....	152,500	
Notes Receivable .....		150,000
Interest Revenue.....		2,500

## PE 9–6A

- a. Accounts Receivable  
Turnover

	2012	2011
Net sales	\$2,430,000	\$1,920,000
Accounts receivable:		
Beginning of year	\$180,000	\$120,000
End of year	\$225,000	\$180,000
Average accts. receivable	\$202,500	\$150,000
	$[(\$180,000 + \$225,000) \div 2]$	$[(\$120,000 + \$180,000) \div 2]$
Accts. receivable turnover	12.0	12.8
	$(\$2,430,000 \div \$202,500)$	$(\$1,920,000 \div \$150,000)$

- b. Number of Days' Sales  
in Receivables

	2012	2011
Net sales	\$2,430,000	\$1,920,000
Average daily sales	\$6,657.5	\$5,260.3
	$(\$2,430,000 \div 365 \text{ days})$	$(\$1,920,000 \div 365 \text{ days})$
Average accts. receivable	\$202,500	\$150,000
	$[(\$180,000 + \$225,000) \div 2]$	$[(\$120,000 + \$180,000) \div 2]$
Number of days' sales in receivables	30.4 days	28.5 days
	$(\$202,500 \div \$6,657.5)$	$(\$150,000 \div \$5,260.3)$

**PE 9–6A (Concluded)**

- c. The decrease in the accounts receivable turnover from 12.8 to 12.0 and the increase in the number of days' sales in receivables from 28.5 days to 30.4 days indicate unfavorable trends in the efficiency of collecting receivables.

**PE 9–6B**

**a. Accounts Receivable  
Turnover**

	<u>2012</u>	<u>2011</u>
Net sales	\$4,514,000	\$4,200,000
Accounts receivable:		
Beginning of year	\$280,000	\$320,000
End of year	\$330,000	\$280,000
Average accts. receivable	\$305,000	\$300,000
	[((\$280,000 + \$330,000) ÷ 2)]	[((\$320,000 + \$280,000) ÷ 2)]
Accts. receivable turnover	14.8	14.0
	(\$4,514,000 ÷ \$305,000)	(\$4,200,000 ÷ \$300,000)

**b. Number of Days' Sales  
in Receivables**

	<u>2012</u>	<u>2011</u>
Net sales	\$4,514,000	\$4,200,000
Average daily sales	\$12,367.1	\$11,506.8
	(\$4,514,000 ÷ 365 days)	(\$4,200,000 ÷ 365 days)
Average accts. receivable	\$305,000	\$300,000
	[((\$280,000 + \$330,000) ÷ 2)]	[((\$320,000 + \$280,000) ÷ 2)]
Number of days' sales in receivables	24.7 days	26.1 days
	(\$305,000 ÷ \$12,367.1)	(\$300,000 ÷ \$11,506.8)

- c. The increase in the accounts receivable turnover from 14.0 to 14.8 and the decrease in the number of days' sales in receivables from 26.1 days to 24.7 days indicate favorable trends in the efficiency of collecting receivables.

## EXERCISES

### Ex. 9–1

Accounts receivable from the U.S. government are significantly different from receivables from commercial aircraft carriers such as Delta and United. Thus, Boeing should report each type of receivable separately. In the December 31, 2009, filing with the Securities and Exchange Commission, Boeing reports the receivables together on the balance sheet, but discloses each receivable separately in a note to the financial statements.

### Ex. 9–2

- a. The MGM Mirage: 20.9% ( $\$97,106,000 \div \$465,580,000$ )
- b. Johnson & Johnson: 3.3% ( $\$333,000,000 \div \$9,979,000,000$ )
- c. Casino operations experience greater bad debt risk, since it is difficult to control the creditworthiness of customers entering the casino. In addition, individuals who may have adequate creditworthiness could overextend themselves and lose more than they can afford if they get caught up in the excitement of gambling. In contrast, Johnson & Johnson's customers are primarily other businesses such as grocery store chains.

### Ex. 9–3

Feb.	13	Accounts Receivable—Dr. Ben Katz .....	120,000	
		Sales.....		120,000
	13	Cost of Merchandise Sold .....	72,000	
		Merchandise Inventory.....		72,000
May	4	Cash.....	90,000	
		Bad Debt Expense.....	30,000	
		Accounts Receivable—Dr. Ben Katz.....		120,000
Nov.	19	Accounts Receivable—Dr. Ben Katz .....	30,000	
		Bad Debt Expense .....		30,000
	19	Cash.....	30,000	
		Accounts Receivable—Dr. Ben Katz.....		30,000

**Ex. 9–4**

Feb.	11	Accounts Receivable—Dakota Co. ....	29,000	
		Sales .....		29,000
	11	Cost of Merchandise Sold.....	17,400	
		Merchandise Inventory .....		17,400
Apr.	15	Cash .....	7,500	
		Allowance for Doubtful Accounts .....	21,500	
		Accounts Receivable—Dakota Co. ....		29,000
Sept.	3	Accounts Receivable—Dakota Co. ....	21,500	
		Allowance for Doubtful Accounts.....		21,500
	3	Cash .....	21,500	
		Accounts Receivable—Dakota Co. ....		21,500

**Ex. 9–5**

a.	Bad Debt Expense.....	12,950	
	Accounts Receivable—Aaron Guzman .....		12,950
b.	Allowance for Doubtful Accounts .....	12,950	
	Accounts Receivable—Aaron Guzman .....		12,950

**Ex. 9–6**

- a. \$80,000 ( $\$16,000,000 \times 0.005$ )
- b. \$82,000 ( $\$77,000 + \$5,000$ )
- c. \$40,000 ( $\$16,000,000 \times 0.0025$ )
- d. \$36,000 ( $\$43,500 - \$7,500$ )

**Ex. 9–7**

<u>Account</u>	<u>Due Date</u>	<u>Number of Days Past Due</u>
Alpha Auto	May 15	77 (16 + 30 + 31)
Best Auto	July 8	23 (31 – 8)
Downtown Repair	March 18	135 (13 + 30 + 31 + 30 + 31)
Lucky's Auto Repair	June 1	60 (29 + 31)
Pit Stop Auto	June 3	58 (27 + 31)



<b>Sally's</b>	<b>April 12</b>	<b>110 (18 + 31 + 30 + 31)</b>
<b>Trident Auto</b>	<b>May 31</b>	<b>61 (30 + 31)</b>
<b>Washburn Repair &amp; Tow</b>	<b>March 2</b>	<b>151 (29 + 30 + 31 + 30 + 31)</b>

**Ex. 9–8**

a.	<u>Customer</u>	<u>Due Date</u>	<u>Number of Days Past Due</u>
	Beltran Industries	July 10	143 days (21 + 31 + 30 + 31 + 30)
	Doodle Company	September 20	71 days (10 + 31 + 30)
	La Corp Inc.	October 17	44 days (14 + 30)
	VIP Sales Company	November 4	26 days
	We-Go Company	December 21	Not past due

b.

	A	B	C	D	E	F	G
1	Aging of Receivables Schedule						
2	November 30						
3				Days Past Due			
4	Customer	Balance	Not Past Due	1–30	31–60	61–90	Over 90
5	Able Brothers Inc.	3,000	3,000				
6	Accent Company	4,500		4,500			
21	Zumpano Company	5,000			5,000		
22	Subtotals	830,000	500,000	180,000	80,000	45,000	25,000
23	Beltran Industries	12,000					12,000
24	Doodle Company	8,000				8,000	
25	La Corp Inc.	17,000			17,000		
26	VIP Sales Company	10,000		10,000			
27	We-Go Company	23,000	23,000				
28	Totals	900,000	523,000	190,000	97,000	53,000	37,000

**Ex. 9–9**

			Days Past Due			
	Balance	Not Past Due	1–30	31–60	61–90	Over 90
Total receivables	900,000	523,000	190,000	97,000	53,000	37,000
Percentage uncollectible		1%	4%	15%	35%	60%
Allowance for Doubtful Accounts	68,130	5,230	7,600	14,550	18,550	22,200

**Ex. 9–10**

Nov. 30	Bad Debt Expense .....	53,850	
	Allowance for Doubtful Accounts.....		53,850
	Uncollectible accounts estimate.		
	(\$68,130 – \$14,280)		

**Ex. 9–11**

Age Interval	Balance	Estimated Uncollectible Accounts	
		Percent	Amount
Not past due .....	\$600,000	¼%	\$ 1,500
1–30 days past due.....	120,000	2	2,400
31–60 days past due.....	60,000	3	1,800
61–90 days past due.....	45,000	10	4,500
91–180 days past due.....	26,000	40	10,400
Over 180 days past due.....	24,000	75	18,000
Total .....	<u>\$875,000</u>		<u>\$38,600</u>

**Ex. 9–12**

2012			
Dec. 31	Bad Debt Expense .....	40,000	
	Allowance for Doubtful Accounts.....		40,000
	Uncollectible accounts estimate.		
	(\$38,600 + \$1,400)		

**Ex. 9–13**

a.	Jan.	27	Bad Debt Expense .....	6,000	
			Accounts Receivable—C. Knoll .....		6,000
Feb.	17		Cash .....	1,000	
			Bad Debt Expense .....	2,000	
			Accounts Receivable—Joni Lester .....		3,000
Mar.	3		Accounts Receivable—C. Knoll .....	6,000	
			Bad Debt Expense .....		6,000
	3		Cash .....	6,000	
			Accounts Receivable—C. Knoll .....		6,000
Dec.	31		Bad Debt Expense .....	11,100	
			Accounts Receivable—Jason Short .....		4,500
			Accounts Receivable—Kim Snider .....		1,500
			Accounts Receivable—Sue Pascall .....		1,100
			Accounts Receivable—Tracy Lane .....		3,500
			Accounts Receivable—Randy Pape .....		500
	31		No entry		
b.	Jan.	27	Allowance for Doubtful Accounts .....	6,000	
			Accounts Receivable—C. Knoll .....		6,000
Feb.	17		Cash .....	1,000	
			Allowance for Doubtful Accounts .....	2,000	
			Accounts Receivable—Joni Lester .....		3,000
Mar.	3		Accounts Receivable—C. Knoll .....	6,000	
			Allowance for Doubtful Accounts .....		6,000
	3		Cash .....	6,000	
			Accounts Receivable—C. Knoll .....		6,000
June	30		Allowance for Doubtful Accounts .....	11,100	
			Accounts Receivable—Jason Short .....		4,500
			Accounts Receivable—Kim Snider .....		1,500
			Accounts Receivable—Sue Pascall .....		1,100
			Accounts Receivable—Tracy Lane .....		3,500
			Accounts Receivable—Randy Pape .....		500
Dec.	31		Bad Debt Expense .....	28,000	
			Allowance for Doubtful Accounts .....		28,000
			Uncollectible accounts estimate. (\$1,600,000 × 1¾% = \$28,000)		

**Ex. 9–13 (Concluded)****c. Bad debt expense under:**

Allowance method.....	<b>\$28,000</b>
Direct write-off method (\$6,000 + \$2,000 – \$6,000 + \$11,100) .....	<b>13,100</b>
Difference (\$28,000 – \$13,100) .....	<b><u>\$14,900</u></b>

Aprilla Company's income would be \$14,900 higher under the direct write-off method than under the allowance method.

**Ex. 9–14**

<b>a. Mar. 14</b>	<b>Bad Debt Expense .....</b>	<b>7,500</b>	
	<b>    Accounts Receivable—Myron Rimando</b>		<b>7,500</b>
<b>May 19</b>	<b>Cash.....</b>	<b>2,000</b>	
	<b>    Bad Debt Expense .....</b>	<b>8,000</b>	
	<b>    Accounts Receivable—Shirley Mason...</b>		<b>10,000</b>
<b>Aug. 7</b>	<b>Accounts Receivable—Myron Rimando .....</b>	<b>7,500</b>	
	<b>    Bad Debt Expense .....</b>		<b>7,500</b>
<b>7</b>	<b>Cash.....</b>	<b>7,500</b>	
	<b>    Accounts Receivable—Myron Rimando</b>		<b>7,500</b>
<b>Dec. 31</b>	<b>Bad Debt Expense .....</b>	<b>33,500</b>	
	<b>    Accounts Receivable—Brandon Peele ..</b>		<b>5,000</b>
	<b>    Accounts Receivable—Clyde Stringer...</b>		<b>9,000</b>
	<b>    Accounts Receivable—Ned Berry .....</b>		<b>13,000</b>
	<b>    Accounts Receivable—Mary Adams .....</b>		<b>2,000</b>
	<b>    Accounts Receivable—Gina Bowers .....</b>		<b>4,500</b>
<b>31</b>	<b>No entry</b>		

**Ex. 9–14 (Continued)**

b. Mar.	4	Allowance for Doubtful Accounts.....	7,500	
		Accounts Receivable—Myron Rimando		7,500
May	19	Cash.....	2,000	
		Allowance for Doubtful Accounts.....	8,000	
		Accounts Receivable—Shirley Mason...		10,000
Aug.	7	Accounts Receivable—Myron Rimando .....	7,500	
		Allowance for Doubtful Accounts .....		7,500
	7	Cash.....	7,500	
		Accounts Receivable—Myron Rimando		7,500
Dec.	31	Allowance for Doubtful Accounts.....	33,500	
		Accounts Receivable—Brandon Peele ..		5,000
		Accounts Receivable—Clyde Stringer...		9,000
		Accounts Receivable—Ned Berry .....		13,000
		Accounts Receivable—Mary Adams.....		2,000
		Accounts Receivable—Gina Bowers .....		4,500
	31	Bad Debt Expense .....	41,700	
		Allowance for Doubtful Accounts .....		41,700
		Uncollectible accounts estimate. (\$45,200 – \$3,500)		

**Computations**

<u>Aging Class (Number of Days Past Due)</u>	<u>Receivables Balance on December 31</u>	<u>Estimated Doubtful Accounts Percent</u>	<u>Amount</u>
0–30 days	\$300,000	1%	\$ 3,000
31–60 days	80,000	4	3,200
61–90 days	20,000	15	3,000
91–120 days	10,000	40	4,000
More than 120 days	40,000	80	32,000
Total receivables	<u>\$450,000</u>		<u>\$45,200</u>

Estimated balance of allowance account from aging schedule .....	\$45,200
Unadjusted credit balance of allowance account .....	3,500*
Adjustment .....	<u>\$41,700</u>

\*\$45,000 – \$7,500 – \$8,000 + \$7,500 – \$33,500 = \$3,500

**Ex. 9–14 (Concluded)****c. Bad debt expense under:**

Allowance method.....	\$41,700
Direct write-off method (\$7,500 + \$8,000 – \$7,500 + \$33,500) .....	41,500
Difference.....	<u>\$ 200</u>

Silhouette's income would be \$200 higher under the direct method than under the allowance method.

**Ex. 9–15**

**\$368,000** [**\$375,000 + \$65,000 – (\$4,800,000 × 1½%)**]

**Ex. 9–16**

**a. \$437,500** [**\$450,000 + \$70,000 – (\$5,500,000 × 1½%)**]

**b. \$19,500** [**(\$72,000 – \$65,000) + (\$82,500 – \$70,000)**]

**Ex. 9–17**

- |   |                   |        |
|---|-------------------|--------|
| <b>a. Bad Debt Expense.....</b>   | <b>29,000</b>     |        |
| Accounts Receivable—Will Boyette .....  |                   | 10,000 |
| Accounts Receivable—Stan Frey .....   |                   | 8,000  |
| Accounts Receivable—Tammy Imes .....  |                   | 5,000  |
| Accounts Receivable—Shana Wagner .....  |                   | 6,000  |
| <br><b>b. Allowance for Doubtful Accounts .....</b>   | <br><b>29,000</b> |        |
| Accounts Receivable—Will Boyette .....  |                   | 10,000 |
| Accounts Receivable—Stan Frey .....   |                   | 8,000  |
| Accounts Receivable—Tammy Imes .....  |                   | 5,000  |
| Accounts Receivable—Shana Wagner .....  |                   | 6,000  |
| <br>Bad Debt Expense.....   | <br>45,000        |        |
| Allowance for Doubtful Accounts .....   |                   | 45,000 |
| Uncollectible accounts estimate.  |                   |        |
| (\$3,000,000 × 1½% = \$45,000)  |                   |        |
| <br><b>c. Net income would have been \$16,000 higher in 2012 under the direct write-off method, because bad debt expense would have been \$16,000 higher under the allowance method (\$45,000 expense under the allowance method vs. \$29,000 expense under the direct write-off method).</b> |                   |        |

**Ex. 9–18**

<b>a. Bad Debt Expense.....</b>	<b>57,300</b>	
Accounts Receivable—Trey Betts .....		15,500
Accounts Receivable—Cheryl Carson .....		9,000
Accounts Receivable—Irene Harris .....		29,700
Accounts Receivable—Renee Putman .....		3,100
 <b>b. Allowance for Doubtful Accounts .....</b>	 <b>57,300</b>	
Accounts Receivable—Trey Betts .....		15,500
Accounts Receivable—Cheryl Carson .....		9,000
Accounts Receivable—Irene Harris .....		29,700
Accounts Receivable—Renee Putman .....		3,100
 <b>Bad Debt Expense.....</b>	 <b>69,800</b>	
Allowance for Doubtful Accounts .....		69,800
Uncollectible accounts estimate.		
(\$67,500 + \$2,300)		

**Computations**

<b>Aging Class</b> <b>(Number of Days</b> <b>Past Due)</b>	<b>Receivables</b> <b>Balance on</b> <b>December 31</b>	<b>Estimated Doubtful Accounts</b>	
		<b>Percent</b>	<b>Amount</b>
0–30 days	\$600,000	1%	\$ 6,000
31–60 days	150,000	2	3,000
61–90 days	75,000	18	13,500
91–120 days	50,000	30	15,000
More than 120 days	60,000	50	30,000
<b>Total receivables</b>	<b><u>\$935,000</u></b>		<b><u>\$67,500</u></b>

<b>Unadjusted debit balance of Allowance for Doubtful</b>	
<b>Accounts (\$57,300 – \$55,000) .....</b>	<b>\$ 2,300</b>
<b>Estimated balance of Allowance for Doubtful</b>	
<b>Accounts from aging schedule .....</b>	<b><u>67,500</u></b>
<b>Adjustment .....</b>	<b><u>\$69,800</u></b>

- c. Net income would have been \$12,500 lower in 2012 under the allowance method, because bad debt expense would have been \$12,500 higher under the allowance method (\$69,800 expense under the allowance method versus \$57,300 expense under the direct write-off method).



**Ex. 9–19**

	<u>Due Date</u>	<u>Interest</u>	
a.	Aug. 13	\$600	$[\$40,000 \times 0.06 \times (90/360)]$
b.	May 19	100	$[\$15,000 \times 0.04 \times (60/360)]$
c.	July 18	120	$[\$24,000 \times 0.03 \times (60/360)]$
d.	Nov. 30	140	$[\$10,500 \times 0.08 \times (60/360)]$
e.	Dec. 28	300	$[\$18,000 \times 0.05 \times (120/360)]$

**Ex. 9–20**

a. July 8 (21 + 31 + 30 + 8)

b. \$91,350  $[(\$90,000 \times 6\% \times 90/360) + \$90,000]$

c.	(1) Notes Receivable.....	90,000	
	Accounts Rec.—Oregon Interior Decorators		90,000
	(2) Cash.....	91,350	
	Notes Receivable .....		90,000
	Interest Revenue .....		1,350

**Ex. 9–21**

1. Sale on account.
2. Cost of merchandise sold for the sale on account.
3. A sale return or allowance.
4. Cost of merchandise returned.
5. Note received from customer on account.
6. Note dishonored and charged maturity value of note to customer's account receivable.
7. Payment received from customer for dishonored note plus interest earned after due date.

**Ex. 9–22**

**2011**

<b>Dec.</b>	<b>10</b>	<b>Notes Receivable .....</b>	<b>36,000</b>	
		<b>Accounts Receivable—Point Loma</b>		
		<b>Clothing &amp; Bags Co. ....</b>		<b>36,000</b>
	<b>31</b>	<b>Interest Receivable .....</b>	<b>84</b>	
		<b>Interest Revenue.....</b>		<b>84</b>
		<b>Accrued interest.</b>		
		<b>(\$36,000 × 0.04 × 21/360 = \$84)</b>		
	<b>31</b>	<b>Interest Revenue .....</b>	<b>84</b>	
		<b>Income Summary.....</b>		<b>84</b>

**2012**

<b>Mar.</b>	<b>9</b>	<b>Cash .....</b>	<b>36,360</b>	
		<b>Notes Receivable.....</b>		<b>36,000</b>
		<b>Interest Receivable.....</b>		<b>84</b>
		<b>Interest Revenue.....</b>		<b>276*</b>
		<b>*\$36,000 × 0.04 × 69/360</b>		

**Ex. 9–23**

<b>May</b>	<b>3</b>	<b>Notes Receivable .....</b>	<b>150,000</b>	
		<b>Accounts Receivable—Sunrider Co. ....</b>		<b>150,000</b>
<b>Aug.</b>	<b>31</b>	<b>Accounts Receivable—Sunrider Co. ....</b>	<b>153,000</b>	
		<b>Notes Receivable .....</b>		<b>150,000</b>
		<b>Interest Revenue.....</b>		<b>3,000*</b>
		<b>*\$150,000 × 0.06 × 120/360</b>		
<b>Oct.</b>	<b>30</b>	<b>Cash .....</b>	<b>155,295</b>	
		<b>Accounts Receivable—Sunrider Co. ....</b>		<b>153,000</b>
		<b>Interest Revenue.....</b>		<b>2,295*</b>
		<b>*\$153,000 × 0.09 × 60/360</b>		

**Ex. 9–24**

Mar.	1	Notes Receivable .....	80,000	
		Accounts Receivable—Tomekia Co. ....		80,000
	18	Notes Receivable .....	75,000	
		Accounts Receivable—Mystic Co. ....		75,000
Apr.	30	Accounts Receivable—Tomekia Co. ....	80,800	
		Notes Receivable.....		80,000
		Interest Revenue.....		800*
		*(\$80,000 × 6% × 60/360)		
May	17	Accounts Receivable—Mystic Co. ....	76,000	
		Notes Receivable.....		75,000
		Interest Revenue.....		1,000*
		*(\$75,000 × 8% × 60/360)		
July	29	Cash .....	82,416	
		Accounts Receivable—Tomekia Co. ....		80,800
		Interest Revenue.....		1,616*
		*(\$80,800 × 0.08 × 90/360)		
Aug.	23	Allowance for Doubtful Accounts .....	76,000	
		Accounts Receivable—Mystic Co. ....		76,000

**Ex. 9–25**

1. The interest receivable should be reported separately as a current asset. It should not be deducted from notes receivable.
2. The allowance for doubtful accounts should be deducted from accounts receivable.

A corrected partial balance sheet would be as follows:

**TULIPS COMPANY**  
**Balance Sheet**  
**December 31, 2012**

<u>Assets</u>		
<b>Current assets:</b>		
Cash .....		\$138,000
Notes receivable .....		400,000
Accounts receivable .....	\$795,000	
Less allowance for doubtful accounts .....	<u>14,500</u>	780,500
Interest receivable .....		20,000

# **Ex. 9–26**

a. and b.	2009	2008
Net sales .....	\$5,018,900	\$4,880,100
Accounts receivable .....	\$576,700	\$585,000
Average accts. receivable ....	\$580,850	\$548,450
	$[(\$576,700 + \$585,000)/2]$	$[(\$585,000 + \$511,900)/2]$
Accts. receivable turnover ...	8.6	8.9
	$(\$5,018,900/\$580,850)$	$(\$4,880,100/\$548,450)$
Average daily sales .....	\$13,750.4	\$13,370.1
	$(\$5,018,900/365)$	$(\$4,880,100/365)$
Days' sales in receivables....	42.2	41.0
	$(\$580,850/\$13,750.4)$	$(\$548,450/\$13,370.1)$

- c. The accounts receivable turnover indicates a decrease in the efficiency of collecting accounts receivable by decreasing from 8.9 to 8.6, an unfavorable trend. The days' sales in receivables also indicates a decrease in the efficiency of collecting accounts receivable by increasing from 41.0 to 42.2, which is an unfavorable trend. These unfavorable trends are consistent with the economic downturn that occurred worldwide in 2008 and 2009. However, before reaching a final conclusion, the ratios should be compared with industry averages and similar firms.

# **Ex. 9–27**

a. and b.	2009	2008
Net sales .....	\$10,148,082	\$10,070,778
Accounts receivable .....	\$1,171,797	\$1,161,481
Average accts. receivable...	\$1,166,639	\$1,079,166.5
	$[(\$1,171,797 + \$1,161,481)/2]$	$[(\$1,161,481 + \$996,852)/2]$
Accts. receivable turnover	8.7	9.3
	$(\$10,148,082/\$1,166,639)$	$(\$10,070,778/\$1,079,166.5)$
Average daily sales .....	\$27,803.0	\$27,591.2
	$(\$10,148,082/365)$	$(\$10,070,778/365)$
Days' sales in receivables ..	42.0	39.1
	$(\$1,166,639/\$27,803.0)$	$(\$1,079,166.5/\$27,591.2)$

**Ex. 9–27 (Concluded)**

- c. The accounts receivable turnover indicates an decrease in the efficiency of collecting accounts receivable by decreasing from 9.3 to 8.7, an unfavorable trend. The number of days' sales in receivables increased from 39.1 to 42.0 days, also indicating an unfavorable trend in collections of receivables. These unfavorable trends are consistent with the economic downturn that occurred worldwide in 2008 and 2009. However, before reaching a final conclusion, both ratios should be compared with those of past years, industry averages, and similar firms.

**Ex. 9–28**

a. and b.

	For the Period Ending	
	Jan. 31, 2010	Jan. 31, 2009
Net sales.....	\$8,632	\$9,043
Accounts receivable .....	\$249	\$313
Average accts. receivable .....	\$281 $[(\$249 + \$313)/2]$	\$334 $[(\$313 + \$355)/2]$
Accts. receivable turnover ....	30.7 $(\$8,632/\$281)$	27.1 $(\$9,043/\$334)$
Average daily sales .....	\$23.6 $(\$8,632/365)$	\$24.8 $(\$9,043/365)$
Days' sales in receivables .....	11.9 $(\$281/\$23.6)$	13.5 $(\$334/\$24.8)$

- c. The accounts receivable turnover indicates an increase in the efficiency of collecting accounts receivable by increasing from 27.1 to 30.7, a favorable trend. The days' sales in receivables indicates an increase in the efficiency of collecting accounts receivable by decreasing from 13.5 to 11.9, also indicating a favorable trend. Before reaching a conclusion, however, the ratios should be compared with industry averages and similar firms.

**Ex. 9–29**

- a. The average accounts receivable turnover ratios are as follows:

The Limited Brands Inc.:  $28.9 [(30.7 + 27.1)/2]$

H.J. Heinz Company:  $9.0 [(8.7 + 9.3)/2]$

**Note:** For computations of the individual ratios, see Ex. 9–27 and Ex. 9–28.

- b. The Limited Brands has the higher average accounts receivable turnover ratio.
- c. The Limited Brands operates a specialty retail chain of stores that sell directly to individual consumers. Many of these consumers (retail customers) pay with MasterCards or VISAs that are recorded as cash sales. In contrast, H.J. Heinz manufactures processed foods that are sold to food wholesalers, grocery store chains, and other food distributors that eventually sell Heinz products to individual consumers. Accordingly, because of the extended distribution chain, we would expect Heinz to have more accounts receivable than The Limited Brands. In addition, we would expect Heinz's business customers to take a longer period to pay their receivables. Accordingly, we would expect Heinz's average accounts receivable turnover ratio to be lower than The Limited Brands as shown in (a).

## PROBLEMS

### Prob. 9–1A

2.	20—				
	Feb.	17	Cash.....	7,500	
			Allowance for Doubtful Accounts.....	22,500	
			Accounts Receivable—Gillespie Co. ....		30,000
	Apr.	11	Accounts Receivable—Colleen Bertram .....	4,250	
			Allowance for Doubtful Accounts .....		4,250
		11	Cash.....	4,250	
			Accounts Receivable—Colleen Bertram.....		4,250
	July	6	Allowance for Doubtful Accounts.....	9,000	
			Accounts Receivable—Covered Wagon Co. ....		9,000
	Nov.	20	Accounts Receivable—Dugan Co. ....	5,900	
			Allowance for Doubtful Accounts .....		5,900
		20	Cash.....	5,900	
			Accounts Receivable—Dugan Co. ....		5,900
	Dec.	31	Allowance for Doubtful Accounts.....	21,700	
			Accounts Receivable—Kipp Co. ....		3,000
			Accounts Receivable—Moore Co. ....		4,000
			Accounts Receivable—Butte Distributors.....		8,000
			Accounts Receivable—Parker Towers.....		6,700
		31	Bad Debt Expense .....	63,050	
			Allowance for Doubtful Accounts .....		63,050
			Uncollectible accounts estimate. (\$60,000 + \$3,050)		

**Prob. 9–1A (Concluded)**

1. and 2.

Allowance for Doubtful Accounts			
Feb. 17	22,500	Jan. 1 Balance	40,000
July 6	9,000	Apr. 11	4,250
Dec. 31	<u>21,700</u>	Nov. 20	5,900
Dec. 31 Unadjusted Balance	3,050		
		Dec. 31 Adjusting Entry	<u>63,050</u>
		Dec. 31 Adj. Balance	60,000

Bad Debt Expense		
Dec. 31 Adjusting Entry	63,050	

3. \$1,140,000 (\$1,200,000 – \$60,000)

4. a. \$56,250 (\$7,500,000 × 0.0075)

b. \$53,200 (\$56,250 – \$3,050)

c. \$1,146,800 (\$1,200,000 – \$53,200)



**Prob. 9–2A**

1.

<b>Customer</b>	<b>Due Date</b>	<b>Number of Days Past Due</b>
Antelope Sports & Flies	June 21, 2011	193 days (9 + 31 + 31 + 30 + 31 + 30 + 31)
Big Hole Flies	Aug. 30, 2011	123 days (1 + 30 + 31 + 30 + 31)
Charlie's Fish Co.	Sept. 8, 2011	114 days (22 + 31 + 30 + 31)
Deschutes Sports	Oct. 20, 2011	72 days (11 + 30 + 31)
Green River Sports	Nov. 7, 2011	54 days (23 + 31)
Smith River Co.	Nov. 28, 2011	33 days (2 + 31)
Wild Trout Company	Dec. 5, 2011	26 days
Wolfe Sports	Jan. 7, 2012	Not past due

2. and 3.

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>
<b>1</b>	<b>Aging of Receivables Schedule</b>							
<b>2</b>	<b>December 31, 2011</b>							
<b>3</b>				<b>Days Past Due</b>				
<b>4</b>	<b>Customer</b>	<b>Balance</b>	<b>Not Past Due</b>	<b>1–30</b>	<b>31–60</b>	<b>61–90</b>	<b>91–120</b>	<b>Over 120</b>
<b>5</b>	AAA Fishery	20,000	20,000					
<b>6</b>	Blue Ribbon Flies	7,500			7,500			
<b>30</b>	Z Fish Co.	4,000		4,000				
<b>31</b>	<b>Subtotals</b>	<b>1,060,00</b>	<b>500,000</b>	<b>315,000</b>	<b>120,000</b>	<b>40,000</b>	<b>25,000</b>	<b>60,000</b>
<b>32</b>	Ant. Sports & Flies	3,000						3,000
<b>33</b>	Big Hole Flies	6,500						6,500
<b>34</b>	Charlie's Fish Co.	12,000					12,000	
<b>35</b>	Deschutes Sports	4,000				4,000		
<b>36</b>	Green River Sports	3,500			3,500			
<b>37</b>	Smith River Co.	1,500			1,500			
<b>38</b>	Wild Trout Company	5,000		5,000				
<b>39</b>	Wolfe Sports	4,500	4,500					
<b>40</b>	<b>Totals</b>	<b>1,100,00</b>	<b>504,500</b>	<b>320,000</b>	<b>125,000</b>	<b>44,000</b>	<b>37,000</b>	<b>69,500</b>
<b>41</b>	<b>Percent uncollectible</b>		<b>1%</b>	<b>4%</b>	<b>8%</b>	<b>25%</b>	<b>45%</b>	<b>80%</b>
<b>42</b>	<b>Estimate of uncollectible accounts</b>	<b>111,095</b>	<b>5,045</b>	<b>12,800</b>	<b>10,000</b>	<b>11,000</b>	<b>16,650</b>	<b>55,600</b>

**Prob. 9–2A            (Concluded)**

<b>4.    Bad Debt Expense.....</b>	<b>112,500</b>	
<b>Allowance for Doubtful Accounts.....</b>		<b>112,500</b>
<b>Uncollectible accounts estimate.</b>		
<b>(\$111,095 + \$1,405)</b>		

5. On the balance sheet, assets would be overstated by \$112,500 since the allowance of doubtful accounts would be understated by \$112,500. In addition,
6. the owner's capital account would be overstated by \$112,500 since bad debt expense would be understated and net income overstated by \$112,500 on the income statement.

**Prob. 9–3A**

**1.**

<b>Year</b>	<b>Bad Debt Expense</b>			<b>Balance of Allowance Account, End of Year</b>
	<b>Expense Actually Reported</b>	<b>Expense Based on Estimate</b>	<b>Increase (Decrease) in Amount of Expense</b>	
<b>1st</b>	<b>\$2,000</b>	<b>\$ 5,250</b>	<b>\$3,250</b>	<b>\$ 3,250</b>
<b>2nd</b>	<b>3,400</b>	<b>6,750</b>	<b>3,350</b>	<b>6,600</b>
<b>3rd</b>	<b>6,450</b>	<b>9,000</b>	<b>2,550</b>	<b>9,150</b>
<b>4th</b>	<b>9,200</b>	<b>15,000</b>	<b>5,800</b>	<b>14,950</b>

- 2. Yes. The actual write-offs of accounts originating in the first two years are reasonably close to the expense that would have been charged to those years on the basis of 3/4% of sales. The total write-off of receivables originating in the first year amounted to \$4,800 (\$2,000 + \$1,800 + \$1,000), as compared with bad debt expense, based on the percentage of sales, of \$5,250. For the second year, the comparable amounts were \$6,560 (\$1,600 + \$3,700 + \$1,260) and \$6,750.**

**Prob. 9–4A**

1.	Note	(a) Due Date	(b) Interest Due at Maturity	
1.		June 9	\$300 ( $\$45,000 \times 60/360 \times 4\%$ )	
2.		July 24	90 ( $\$18,000 \times 30/360 \times 6\%$ )	
3.		Oct. 29	720 ( $\$36,000 \times 120/360 \times 6\%$ )	
4.		Dec. 30	540 ( $\$36,000 \times 60/360 \times 9\%$ )	
5.		Jan. 14	540 ( $\$54,000 \times 60/360 \times 6\%$ )	
6.		Jan. 26	135 ( $\$40,500 \times 30/360 \times 4\%$ )	
2.	Oct. 29	Accounts Receivable .....	36,720	
		Notes Receivable .....		36,000
		Interest Revenue .....		720
3.	Dec. 31	Interest Receivable .....	432	
		Interest Revenue .....		432
		Accrued interest.		
		$\$54,000 \times 0.06 \times 46/360 = \$414$		
		$\$40,500 \times 0.04 \times 4/360 = 18$		
		Total	<u>\$432</u>	
4.	Jan. 14	Cash .....	54,540	
		Notes Receivable .....		54,000
		Interest Receivable .....		414
		Interest Revenue .....		126*
		$*\$54,000 \times 0.06 \times 14/360$		
	26	Cash .....	40,635	
		Notes Receivable .....		40,500
		Interest Receivable .....		18
		Interest Revenue .....		117*
		$*\$40,500 \times 0.04 \times 26/360$		

**Prob. 9–5A**

June	3	Notes Receivable .....	24,000	
		Accounts Receivable .....		24,000
July	26	Notes Receivable .....	27,000	
		Accounts Receivable .....		27,000
Aug.	2	Cash .....	24,160	
		Notes Receivable .....		24,000
		Interest Revenue .....		160
Sept.	4	Notes Receivable .....	60,000	
		Accounts Receivable .....		60,000
Nov.	3	Cash .....	60,300	
		Notes Receivable .....		60,000
		Interest Revenue .....		300
	5	Notes Receivable .....	36,000	
		Accounts Receivable .....		36,000
	23	Cash .....	27,450	
		Notes Receivable .....		27,000
		Interest Revenue .....		450
	30	Notes Receivable .....	18,000	
		Accounts Receivable .....		18,000
Dec.	5	Cash .....	36,210	
		Notes Receivable .....		36,000
		Interest Revenue .....		210
	30	Cash .....	18,075	
		Notes Receivable .....		18,000
		Interest Revenue .....		75

**Prob. 9–6A**

Jan.	5	Notes Receivable .....	17,500	
		Cash .....		17,500
Feb.	4	Accounts Receivable—Tedra & Co. ....	19,000	
		Sales .....		19,000
	4	Cost of Merchandise Sold .....	11,000	
		Merchandise Inventory .....		11,000
	13	Accounts Receivable—Centennial Co. ....	30,000	
		Sales .....		30,000
	13	Cost of Merchandise Sold .....	17,600	
		Merchandise Inventory .....		17,600
Mar.	6	Notes Receivable .....	19,000	
		Accounts Receivable—Tedra & Co. ....		19,000
	14	Notes Receivable .....	30,000	
		Accounts Receivable—Centennial Co. ....		30,000
Apr.	5	Notes Receivable .....	17,500	
		Cash .....	350	
		Notes Receivable .....		17,500
		Interest Revenue .....		350*
		*( $\$17,500 \times 8\% \times 90/360$ )		
May	5	Cash .....	19,190	
		Notes Receivable .....		19,000
		Interest Revenue .....		190*
		*( $\$19,000 \times 6\% \times 60/360$ )		
	13	Accounts Receivable—Centennial Co. ....	30,450	
		Notes Receivable .....		30,000
		Interest Revenue .....		450*
		*( $\$30,000 \times 9\% \times 60/360$ )		
July	12	Cash .....	31,059	
		Accounts Receivable—Centennial Co. ....		30,450
		Interest Revenue .....		609*
		*( $\$30,450 \times 12\% \times 60/360$ )		
Aug.	3	Cash .....	18,025	
		Notes Receivable .....		17,500
		Interest Revenue .....		525*
		*( $\$17,500 \times 9\% \times 120/360$ )		

**Prob. 9–6A            (Concluded)**

<b>Sept.</b>	<b>7</b>	<b>Accounts Receivable—Lock-It Co. ....</b>	<b>9,000</b>	
		<b>Sales.....</b>		<b>9,000</b>
	<b>7</b>	<b>Cost of Merchandise Sold .....</b>	<b>5,000</b>	
		<b>Merchandise Inventory.....</b>		<b>5,000</b>
<b>17</b>		<b>Cash.....</b>	<b>8,910</b>	
		<b>Sales Discounts.....</b>	<b>90</b>	
		<b>Accounts Receivable—Lock-It Co. ....</b>		<b>9,000</b>