

P8-1

a. 1) Rogal's bad debt expense for 2004 will be \$9,960.

Age in days	Amount	Percent Estimated Uncollectible	Amount
0-10	\$296,000	1	\$ 2,960
11-60	42,000	5	2,100
61-180	34,000	15	5,100
Over 180	<u>12,000</u>	30	<u>3,600</u>
TOTAL	\$384,000		\$13,760
Amount estimated uncollectible			\$13,760
Existing credit balance in allowance for doubtful accounts			<u>(3,800)</u>
Bad debt expense			\$ 9,960

2) The write-off does *not* affect 2005's income before taxes.

	Balance before write-off	Balance after write-off
Accounts receivable	\$384,000	\$374,000
Allowance for doubtful accounts	<u>(13,760)</u>	<u>(3,760)</u>
Net accounts receivable	<u>\$370,240</u>	<u>\$370,240</u>

b. Bad debt expense:  $\$1,200,000 (.005) = \$6,000$

Balance in allowance for doubtful accounts:

Balance before adjustment	\$3,800	CR
Bad debt expense	<u>6,000</u>	
Balance after adjustment	\$9,800	CR

c. Direct write-off is not preferred GAAP. It fails to include the bad debt expense in the period in which sales revenue is recognized, violating the matching principle.

P8-2

a. Accounts receivable 2,600,000  
Sales revenue 2,600,000

(To recognize revenue and to anticipate collection of receivables)

Cash 2,400,000  
Accounts receivable 2,400,000

(To recognize collection of cash from companies owing Boyce Corp. from 2004 sales)

Allowance for doubtful accounts 150,000  
Accounts receivable 150,000

(To write off accounts that will not be collected)

Accounts receivable 1,200

Allowance for doubtful accounts 1,200

(To reverse the write-off of accounts written off in previous years that were collected in 2004)

Cash 1,200

Accounts receivable 1,200

(To record collection of accounts written off in previous years)

Bad debt expense 156,000

Allowance for doubtful accounts 156,000

(To record bad debt expense based on an estimate that 6 percent of credit sales will not be collectible)

b. Bad debt expense will be \$156,000

c. Net accounts receivable:

Accounts receivable balance  
 $(\$2,000,000 + 2,600,000 - 2,400,000 - 150,000 + 1,200 - 1,200)$  \$2,050,000

Allowance for doubtful accounts balance  
 $(\$140,000 - 150,000 + 1,200 + 156,000)$  (147,200)

Net accounts receivable \$1,902,800

d. If Boyce only experiences a 5% loss instead of a 6% loss, the company will have a "gain" from the collection experience. This gain is most often recognized by slightly reducing the bad debt expense percentage going forward.

P8-3

a. Accounts receivable 2,600,000  
Sales revenue 2,600,000

(To recognize revenue and to anticipate collection of receivables)

Cash 2,400,000  
Accounts receivable 2,400,000

(To recognize collection of cash from companies owing Boyce Corp. from 2004 sales)

Allowance for doubtful accounts 150,000  
Accounts receivable 150,000

(To write off accounts that will not be collected)

Accounts receivable 1,200

Allowance for doubtful accounts	1,200
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(To reverse the write-off of accounts written off in previous years that were collected in 2004)

Cash	1,200
Accounts receivable	1,200

(To record collection of accounts written off in previous years)

Bad debt expense	111,300
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Allowance for doubtful accounts	111,300
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(To record bad debt expense based on an estimate that 5% of accounts receivable will not be collectible)

Accounts receivable balance:  
 (\$2,000,000 + 2,600,000 – 2,400,000 – 150,000 + 1,200 – 1,200)      \$2,050,000

Required balance in allowance for doubtful accounts:  
 \$2,050,000(.05)      \$102,500

Balance in allowance before adjustment:  
 (\$140,000 – 150,000 + 1,200)      8,800 DR

Bad debt expense      \$111,300

b. Bad debt expense will be \$111,300

c. Net accounts receivable:  
 Accounts receivable balance (\$2,000,000 + 2,600,000 – 2,400,000 – 150,000 + 1,200 – 1,200)      \$2,050,000  
 Allowance for doubtful accounts balance  
 (\$140,000 – 150,000 + 1,200 + 111,300)      (102,500)  
 Net accounts receivable      \$1,947,500

P8-4

a. Although a write-off of accounts receivable has no effect on net income, Sears' new policy will require the company to increase its estimates of potential uncollectible accounts resulting from sales in 1998 and 1999. This will have the effect of increasing the estimated bad debt expense, resulting in higher loan loss reserves (bad debt expense) being recognized in 1998 and 1999, the years the system is being changed over.

*The Wall Street Journal* reported:

"The impact of the change began to appear in Sears' 1998 fourth-quarter earnings report. A group of credit card accounts, representing about 12% of the business, which had already been converted to the new system, showed a 10.1% delinquency rate, a 43.6% jump from the 7.03% rate recorded

in the fourth quarter of 1997 for the whole portfolio."

b. If the potential uncollectible accounts are overestimated in 1998 and 1999, net income for those years will be understated. The "gain" from the collection period would be recognized in the years 2000 and after, by reducing the estimated uncollectible accounts expense. This would overstate 2000's income relative to what it otherwise would have been.

P8-5

a. Uncollectible accounts expense	1,287,000,000
Allowance (provision) for uncollectible accounts	1,287,000,000

(To record bad debt expense based on estimated uncollectible accounts)

b. Allowance (provision) for uncollectible accounts	2,040,000,000
Accounts receivable	2,040,000,000

(To write off uncollectible accounts receivable)

c. Entry a. reduces net income by \$1,287,000,000. Entry b. has no effect on net income.

d. The provision for uncollectible accounts is added back to net income because it is an expense that reduces Sears' net income, but does not use any cash. The provision estimates potential future bad debts related to current years' sales. However, it is a noncash expense similar to depreciation and amortization that did not require any cash outlay on the part of the company.

P8-6

a. Economic value of accounts receivable:  
 (\$235,000,000 – \$23,000,000)/ 1.03 = \$205,825,240

Receivable turnover is 4.05, or once every 90 days (3 months); so interest for 90 days is 0.12/4 = .03.

b. Generally Accepted Accounting Principles ignore interest because accounts receivable are usually outstanding for only a short period of time. Therefore, book values and returns on equity will be fairly close to their economic values.

c. Market-to-book value ratio:

Economic value of accounts receivable /Book value of accounts receivable  
 $\$205,825,240/\$212,000,000 = .971$

d. Since potential uncollectible accounts represent *estimates* by a company's management, there are times when those estimates can be suspect. If the expectations that are built into the book value are substantially different from those used to determine economic value, the market-to-book value ratio can differ significantly from one.

P8-7

a. There is a significant negative trend beginning in 2001. Gross accounts receivable declined 43 percent from 7/31/00 to 4/27/03. This would be attributable to the economic downturn that affected the entire technology sector beginning in 2001.

	7/31/99	7/31/00	7/28/01	4/27/02
Accounts receivable	\$1,269	\$2,342	\$1,75	\$1,336
Allowance for doubtful accounts	27	43	288	346
Net accounts receivable	\$1,242	\$2,299	\$1,466	\$990
Allowance as a % of gross accounts receivable	2.1%	1.8%	16.4%	25.9%

The trend is very alarming. Cisco's allowance for doubtful accounts has grown from around 2 percent of accounts receivable in 1999 and 2000 to nearly 13 times that level, or 26 percent, in 2002. At 4/27/02, the company expects that one out of every four dollars owed to it will not be collected.

c. In an economic downturn, it is expected that doubtful accounts will increase. As sales decline, it would also be expected that total accounts receivable will decline. However, note the dramatic percentage increase in the allowance for doubtful accounts compared to 1999, when accounts receivable were only about 5 percent less than in 2002. At that time, the allowance for doubtful accounts was only 2 percent of total accounts receivable. The allowance reported in 2002 is greater than in any previous year, both in absolute dollars and as a percentage of gross accounts receivable. In 2002, it had risen to more than one quarter of the total accounts receivable. This raises doubt about the quality of revenues reported in 2001 and 2002. It could also raise doubts as to the future business prospects of Cisco. It implies that many of Cisco's customers are having difficulty paying their bills. If these customers file for bankruptcy, potential future growth at Cisco is at risk. In addition, increasing bad debts in the future will also negatively impact Cisco's operating margins.

d. If Cisco has overstated its bad debt expense in 2002, the company will

"make up" the difference in 2003. This might result in lower operating expenses and higher operating income in 2003. It would make 2003's results appear even better, especially if compared with 2002.

Source: Cisco Sytem's annual reports and 10-Q, Reuters, May 29, 2002.

P8-8

a.	Beginning accounts receivable	\$9,450,000
	Sales	105,900,000
	less writeoffs	-4,426,000
	less cash collections	?
	Equals ending accounts receivable	\$ 11,735,000
	Cash collections =	\$103,189,000

b.	Age of receivable	Amount of receivable	% Uncollectible	Amount
	0-30 days	\$8,000,000	1%	\$80,000
	31-60 days	\$3,000,000	6%	180,000
	61-90 days	\$600,000	14%	84,000
	91-120 days	\$115,000	30%	34,500
	more than 120 days	\$20,000	50%	10,000
	Total	\$11,735,000		\$388,500

Balance in Allowance for Doubtful Accounts 1/1/04: \$330,750 CR  
 Accounts written off during 2004: 426,000 DR  
 Balance at 12/31/04 before adjustment 95,250 DR  
 Required balance per aging: 388,500 CR  
 Bad debt expense for 2004: \$483,750

c.	Bad debt expense	483,750
	Allowance for doubtful accounts	483,750

d.	Accounts receivable balance at 12/31/04:	\$11,735,000
	Allowance for doubtful accounts at 12/31/04:	(388,500)
	Net accounts receivable at 12/31/04:	\$11,346,500

e. Sebago uses a balance sheet approach, since the company estimates the potential uncollectible accounts based on an aging of accounts receivable. The ending balance in the allowance for doubtful accounts is a function of this aging; the bad debt expense is a "plug" based on the beginning balance in the allowance, any accounts written off during the year and the required ending balance based on the aging.

