

## PROBLEM # 1

Ben & Jerry's Homemade, Inc. makes and sells super premium ice cream and other frozen dessert products through distributors and directly to retail outlets, including company-owned and franchised ice cream parlors. The company's 1997 annual report included the following information:

### Balance Sheet

(In thousands)

	December 27, 1997	December 28, 1996
Assets		
Current assets:		
Trade accounts receivable (less allowance of \$1,066 in 1997 and \$695 in 1996 for doubtful accounts)	12,710	8,864

In addition, the income statements reported net sales of \$174,206 and \$167,155 (dollars in thousands) for 1997 and 1996, respectively. The statements of cash flows reported bad debt expense of 630 and 408 (dollars in thousands) for 1997 and 1996, respectively. All of the bad debts relate to trade receivables. During the year there were no previously written-off receivables that were collected. All sales are made on a credit basis (trade receivables).

### REQUIRED:

1. What is the amount of gross trade accounts receivable outstanding at the end of 1997?
2. What is the amount of bad debt write-offs the company recorded in 1997?
3. What is the amount of cash collected from customers during 1997?
4. Compute the company's accounts receivable turnover ratio for 1997.

## PROBLEM # 1 ANSWERS

1.  $\$12,710 + 1,066 = \mathbf{\$13,776}$

2. Beginning allowance	695
+ bad debt expense	630
- ending balance	(1066)
= write-offs	<b>259</b>

3. Beginning A/R	9,559
+ sales	174,206
- write offs	(259)
less ending balance	(13,776)
= cash collections	<b>169,730</b>

4. If use gross accounts receivable,  $\$174,206 / ((\$13,776 + 9,559) / 2) = \mathbf{14.9}$   
If use net accounts receivable,  $\$174,206 / ((\$12,710 + 8,864) / 2) = \mathbf{16.15}$

## PROBLEM # 2

The fact that generally accepted accounting principles allow companies flexibility in choosing between certain allocation methods makes it difficult for a financial analyst to compare periodic performance across firms.

Suppose you were a financial analyst trying to compare the performance of two companies. Company ABC uses the double-declining balance depreciation method. Company XYZ uses the straight-line method. You have the following information taken from the 12/31/98 year-end financial statements for XYZ (the straight-line company):

### Balance Sheet as of 12/31/98

Assets	
Plant and Equipment, at cost	\$200,000
Less accumulated depreciation	<u>(40,000)</u>
Net	\$160,000

### Income Statement (for 1998)

Depreciation expense     \$ 10,000

You also find out that all of the Plant and Equipment was acquired at the same time, and that the cost of \$200,000 is all for depreciable assets. Also, all assets have the same useful life and no salvage is ever used.

### REQUIRED:

In order to compare with ABC, estimate what XYZ's depreciation expense would have been for 1998 if the double-declining balance depreciation method had been used by XYZ since acquisition of the assets.

### Solution:

\$40,000 in accumulated depreciation divided by \$10,000 in annual depreciation = 4.  
Therefore, the assets are 4 years old. (i.e., 1998 is the fourth year of the assets life)

\$200,000 divided by \$10,000 = 20. Therefore, the life of the assets is 20 years.

DDB depreciation, twice the straight line rate of 5% (1/20) = 10%

Year 1: \$200,000 x 10% = \$20,000

Year 2: \$180,000 x 10% = \$18,000

Year 3: \$162,000 x 10% = \$16,200

Year 4: \$145,800 x 10% = **\$14,580** = answer

### PROBLEM # 3

The Butler Co. began business on July 1, 1997 selling a single product. For the year ending June 30, 1998, 15,000 units were sold at \$10 each. Purchases consisted of 10,000 units on July 12, 1997, at \$4 and 10,000 units on December 18, 1997, at \$5. Jim Johnson, the accountant for Butler Co., prepared the following earnings statement for the year ended June 30, 1998, for presentation to the Board of Directors:

Sales	\$150,000
Cost of Goods Sold	<u>67,500</u>
Gross margin	\$ 82,500
Expenses	<u>40,000</u>
Net earnings before taxes	<u>\$ 42,500</u>

At the board meeting, members of the Board questioned Jim's use of the average cost method in determining the cost of goods sold and the cost of the ending inventory. One member indicated a preference for LIFO; another preferred FIFO; and yet another asked about the effects of using FIFO or LIFO and the direction of price changes. The Board directed Jim to prepare the information desired by the various members and to report at the afternoon meeting of the board.

#### REQUIRED:

(a) Using the above information, prepare two earnings statements similar to the one given above, one using FIFO, and the other using LIFO, for presentation to the Board. Assume that Butler Co. uses periodic inventory procedures.

(b) Assume that the company decided to continue using the average cost method and that for the fiscal year ended June 30, 1999 (i.e., the next year), cost of goods sold totaled \$80,000 and ending inventory totaled \$27,500. Compute the inventory turnover ratio for the year ended June 30, 1999.

### **PROBLEM # 3 ANSWERS**

(a) FIFO cost of goods sold =  $10,000 \times \$4, + 5,000 \times \$5 = 65,000$

therefore, earnings before taxes would be **\$45,000**

LIFO cost of goods sold =  $10,000 \times \$5, + 5,000 \times \$4 = \$70,000$

therefore, earnings before taxes would be **\$40,000**

(b)  $\$80,000/(\$22,500 + 27,500)/2 = 3.2$

#### **PROBLEM #4**

Late in 1997, Alexander Whisnant, a self-proclaimed computer expert, decided to create a company to provide Internet consulting services to customers. On January 3, 1998, Alexander established **TopPage, Inc.** and contributed \$100,000 in cash from his personal savings in exchange for all of the company's 50,000 shares of authorized common stock.

Additional transactions that occurred during the first few months of 1998 were as follows:

- February 1 Borrowed \$100,000 from a local bank to help finance the company. A note was signed that required the company to pay back the entire \$100,000 plus 12% interest on February 1, 1999.
- March 1 Paid \$24,000 representing rent for one year on office space.
- March 1 Purchased office equipment for \$12,000. The equipment is expected to last five years and be donated to charity at the end of that time. Assume straight-line depreciation.

During 1998, the following summary transactions occurred:

1. Sales to customers, all on account, \$450,000.
2. Cash collections from customers, \$420,000.
3. Cash paid to employees for salaries, \$300,000.
4. Cash paid for operating expenses (utilities, insurance, etc.), \$40,000
5. Cash paid for advertising, \$12,000. Of this amount, \$2,000 represented an advance payment for local radio ads that would run in January of 1999.
6. Cash dividend paid to owner, \$10,000.

At the end of 1998, employees were owed \$20,000 for salaries earned in the month of December 1998. These salaries will be paid in January 1999. Also, a utility bill for \$2,000 for December will not be paid until January 1999.

#### **REQUIRED:**

1. For each external transaction, show the effect on financial position using the accounting equation format ( $A = L + OE$ ). Use the worksheet on the next page. Also show the effect on financial position of any internal transactions. Ignore income taxes.
2. Prepare an income statement for the fiscal year ended December 31, 1998.
3. What amount would appear on the 1998 statement of cash flows as cash flow from operating activities?

**PROBLEM #4 WORKSHEET**

ASSETS	=	LIABILITIES	+	OWNERS' EQUITY
+100,000 cash				+ 100,000 common stock
+100,000 cash		+100,000 note payable		
-24,000 cash				
+24,000 prepaid rent				
-12,000 cash				
+12,000 equipment				
+450,000 accounts receivable				+ 450,000 sales revenue
+420,000 cash				
-420,000 accounts receivable				
-300,000 cash				- 300,000 salaries expense
-40,000 cash				- 40,000 operating expenses
-12,000 cash				- 10,000 advertising expense
+2,000 prepaid advertising				
-10,000 cash				- 10,000 dividends (retained earn.)
		+ 20,000 salaries pay.		-20,000 salaries expense
		+ 2,000 utilities pay.		- 2,000 operating expense
		+11,000 interest pay.		-11,000 interest expense
-20,000 prepaid rent				-20,000 rent expense
-2,000 accumulated depreciation				-2,000 depreciation expense

**PROBLEM #4**

**INCOME STATEMENT**

Sales revenue		\$450,000
Expenses:		
Salaries	\$320,000	
Operating	42,000	
Advertising	10,000	
Interest	11,000	
Rent	20,000	
Depreciation	<u>2,000</u>	<u>405,000</u>
Net income		<u>\$ 45,000</u>

## PROBLEM #5

ANSWER EACH OF THE FOLLOWING QUESTIONS IN THE SPACE PROVIDED

1. On December 31, 1998, the Askew Company listed Prepaid Insurance of \$2,400 as an asset on its year-end balance sheet. On December 31, 1999, the company listed Prepaid Insurance of \$2,100 on its year-end balance sheet. If the 1999 income statement reported insurance expense of \$4,500, what amount of cash was paid during 1999 for insurance?

$\$4,500 - 300 \text{ decrease in Prepaid} = \mathbf{\$4,200 \text{ cash paid}}$

2. On its 12/31/98 balance sheet, the MSAN Magazine Company listed unearned revenue of \$36,500. During 1999, the company received cash of \$620,000 from magazine subscribers. At the end of 1999, unearned revenue on the balance sheet totaled \$42,000. What amount of subscription revenue should the company report on its 1999 income statement?

$\$620,000 - 5,500 \text{ increase in unearned revenue} = \mathbf{\$614,500}$

3. Dorean's allowance for uncollectible accounts had a credit balance of \$6,000 at the end of 1997 and a credit balance of \$8,000 at the end of 1998. During 1998, bad debt expense totaled \$22,000. What was the amount of accounts receivable actually written off during 1998?

$\$6,000 + 22,000 - \text{write offs} = \$8,000$   
 $\text{write-offs} = \mathbf{\$20,000}$

