

Event/Transaction	Statement of Cash Flows
<p>a) Receives \$50,000 cash for orders which will be delivered during the next fiscal year. The company acquires \$30,000 of inventory on account to fill these orders.</p> $\frac{\text{Cash (A)}}{+50,000} + \frac{\text{Inv (A)}}{+30,000} = \frac{\text{AP}}{+30,000} + \frac{\text{Adv from Cust. (L)}}{+50,000} + \frac{\text{RE (E)}}{+50,000}$	<p><i>Operating Section</i></p> <p><i>Net Income</i> 0</p> <p>+ <i>Increase in Adv from Cust.</i> 50,000</p> <p>+ <i>Increase in AP</i> 30,000</p> <p>- <i>Increase in Inventory</i> <u>-30,000</u></p> <p><i>CFO</i> +50,000</p>
<p>b) The company delivers all the goods ordered in (1).</p> $\frac{\text{Cash (A)}}{-30,000} + \frac{\text{Inv (A)}}{+30,000} = \frac{\text{Adv from Cust. (L)}}{-50,000} + \frac{\text{RE (E)}}{+20,000}$	<p><i>Operating Section</i></p> <p><i>Net Income</i> 20,000</p> <p>- <i>Increase in Adv from Cust.</i> -50,000</p> <p>+ <i>Decrease in Inventory</i> +<u>30,000</u></p> <p><i>CFO</i> 0</p>
<p>c) Warehouse flooding ruins \$5,000 of inventory which is thrown away. No provision had been made for damaged inventory.</p> $\frac{\text{Inventory (A)}}{-5,000} = \frac{\text{RE (E)}}{-5,000}$	<p><i>Operating Section</i></p> <p><i>Net Income</i> -5,000</p> <p>+ <i>Decrease in Inventory</i> +<u>5,000</u></p> <p><i>CFO</i> 0</p>
<p>d) The company rents office space for one year, paying the entire year's rent of \$12,000 in advance and recognizing the first month's rental expense.</p> $\frac{\text{Cash (A)}}{-12,000} + \frac{\text{Prepaid Rent (A)}}{+11,000} = \frac{\text{RE (E)}}{-1,000}$	<p><i>Operating Section</i></p> <p><i>Net Income</i> -1,000</p> <p>- <i>Increase in Prpd. Rent</i> <u>-11,000</u></p> <p><i>CFO</i> -12,000</p>
<p>e) The company borrows \$15,000 from the bank and purchases office equipment for \$10,000 cash.</p> $\frac{\text{Cash (A)}}{5,000} + \frac{\text{PPE (A)}}{+10,000} = \frac{\text{Debt(L)}}{+15,000}$	<p><i>CFO</i> 0</p> <p><i>CFI</i></p> <p><i>Purchase of PPE</i> -10,000</p> <p><i>CFF</i></p> <p><i>Borrow</i> +15,000</p> <p><i>Net Cash Flow</i> +5,000</p>

**Question 2: Accounts Receivable (16 Points)**

The following is an excerpt from the 10-K of Tootsie Roll Industries Inc.:

Tootsie Roll Industries, Inc. and its consolidated subsidiaries (the "Company") have been engaged in the manufacture and sale of candy for over 100 years. This is the only industry segment in which the Company operates and is its only line of business. The majority of the Company's products are sold under the registered trademarks TOOTSIE ROLL, TOOTSIE ROLL POPS, CHILD'S PLAY, CARAMEL APPLE POPS, CHARMS, BLOW-POP, BLUE RAZZ, ZIP-A-DEE-DOO-DA POPS, CELLA'S, MASON DOTS, MASON CROWS, JUNIOR MINT, CHARLESTON CHEW, SUGAR DADDY, SUGAR BABIES, ANDES AND FLUFFY STUFF.

Please refer to the financial statements for Tootsie for additional information. *Assume all sales are on account and there are no deferred revenues.*

- a. (3 points) What is the gross amount of Tootsie Roll's accounts receivable at the end of 2000?

$$(23,568 + 1,230) + 2,147 = 27,945$$

*we also accepted*

$$23,568 + 2,147 = 25,715 \text{ which omitted the "other receivables"}$$

- b. (4 points) What percentage of these receivables does management estimate to be uncollectible? How does this compare with 1999?

$$2000: 2,147 / 25,715 = 8.3\%$$

$$1999: 2,032 / (2,032 + 19,032) = 9.6\%$$

*Tootsie Roll has a lower percent of uncollectible accounts in 2000 vs. 1999, therefore they believe they will be collecting more receivables.*

- c. (5 points) Using the balance sheet equation format or journal entries, reconstruct the transactions for (a) bad debt expense and (b) the actual write-offs of uncollectible accounts for the year ended December 31, 2000.

	<u>A/R</u>	<u>-ADA</u>	=	<u>R.E.</u>
(a)		-2,032		
		-365		-365 (Bad Debt Expense from I/S)
(b)	-250	+250**		
		-2,147		

$$** 2,032 + 365 - 2,147 = 250$$

- d. (4 points) Estimate the amount of cash Tootsie Roll collected from customers in 2000. *Using Account Receivable (Gross):*

$$BB + Sales - Write Offs - EB = Cash Collections$$
$$(19,023 + 2,032) + 427,054 - 250 - (23,568 + 2,147) = 422,153$$

### **Question 3: Inventory (15 points)**

Please refer to the financial statements for Tootsie Roll for additional information. The following footnote appears in Tootsie Roll's 2000 10K:

INVENTORIES:

Inventories are stated at cost, not in excess of market. The cost of **domestic** inventories (\$37,505 and \$29,111 at December 31, 2000 and 1999, respectively) has been determined by the last-in, first-out (LIFO) method. The excess of current cost over LIFO cost of inventories approximates \$2,993 and \$5,008 at December 31, 2000 and 1999, respectively.

a) (3 points) What is the 2000 LIFO reserve?

\$2,993

b) (4 points) Did Tootsie Roll experience inflation or deflation in raw materials costs during 2000? Provide evidence in support of your answer.

$$\begin{array}{rcl} \text{Change in LIFO Reserve} & = & \text{Inflation (Deflation)} + \text{Effect of Layer Dipping} \\ (2,993 - 5,008) & = & X + 0 \end{array}$$

$$x = -2,105 \text{ thus deflation}$$

c) (8 points) Compute Tootsie Roll's inventory turnover (COGS / Average Inventory) in 2000 under LIFO. Compute inventory turnover under FIFO. Which measure gives the more accurate economic picture of Tootsie Roll's performance? Why?

$$\begin{array}{l} \text{LIFO} \\ \underline{207,100} \\ (41,890 + 35,085)/2 \\ = 5.38 \end{array}$$

$$\begin{array}{l} \text{FIFO} \\ \underline{207,100 - (2,993 - 5008) = 209,115} \\ (41,890 + 2,993 + 35,085 + 5,008)/2 \\ = 4.92 \end{array}$$

using domestic inventories only:

$$\begin{array}{l} \text{LIFO} \\ \underline{207,100} \\ (37,505 + 29,111)/2 \\ = 6.22 \end{array}$$

$$\begin{array}{l} \text{FIFO} \\ \underline{207,100 - (2,993 - 5008) = 209,115} \\ (37,505 + 2,993 + 29,111 + 5,008)/2 \\ = 5.61 \end{array}$$

*FIFO is considered a better measure of economic performance because it matches somewhat current costs in COGS to current costs in Inventory. LIFO has more distortion because it matches current costs in COGS to older costs in Inventory.*

**Question 4: Long-Lived Assets (14 points)**

The following is an excerpt from the 10-K of William Wrigley Jr. Co's for 2000:

The consolidated financial statements include the accounts of the Wm. Wrigley Jr. Company and its associated companies (the Company). The Company's principal business is manufacturing and selling chewing gum. All other businesses constitute less than 10% of combined revenues, operating profit and identifiable assets.

Please refer to Wrigley's balance sheet, statement of operations, and statement of cash flows when answering the following questions.

- a. (3 points) What was the gain or loss associated with the sale of property, plant and equipment in 2000? Be sure to specify whether it was a gain or a loss.

*\$778 loss*

- b. (3 points) Record the transaction (you may use either the balance sheet equation format or journal entries) for the depreciation of property, plant and equipment for Wrigley for 2000?

$$\frac{PPE (A) - Accum. Depreciation (XA)}{57,880} = \frac{Retained Earnings (E)}{-57,880}$$

- c. (8 points) In addition to selling PP&E, Wrigley purchased some PP&E. Record the transactions for (a) the purchase and (b) sale of retired PP&E. There were no non-cash purchases in 2000.

	<u>Cash</u>	+	<u>PPE</u>	-	<u>AD</u>	=	<u>RE</u>
<i>BB</i>			1,062,775		-503,635		
					-57,880		
<i>(a)</i>	-107,680		+107,680				
<i>(b)</i>	1,128		<u>-30,823*</u>		<u>+28,917**</u>		-778
<i>EB</i>			1,139,632		-532,598		

\* 1,062,775 + 107,680 – 1,139,632

\*\* -503,635 – 57,880 + 532,598

**Question 5: Miscellaneous (15 points)**

Please refer to both Tootsie Roll's and Wrigley's financial statements when answering the following questions.

- a. (6 points) Calculate the components of return on assets (using the formulas below) for Tootsie Roll and Wrigley for 2000. Use ending balances (vs. average balances) for the balance sheet accounts.

	ROA	=	Profitability	x	Asset Turnover
	$\frac{\text{Net Income}}{\text{Assets}}$	=	$\frac{\text{Net Income}}{\text{Sales}}$	x	$\frac{\text{Sales}}{\text{Assets}}$
Tootsie Roll	$\frac{13.5\%}{75,737 / 562,442}$		$\frac{0.177}{75,737 / 427,054}$		$\frac{0.759}{427,054 / 562,442}$
Wrigley	$\frac{20.9\%}{328,942 / 1,574,740}$		$\frac{0.153}{328,942 / 2,145,706}$		$\frac{1.36}{2,145,706 / 1,574,740}$

- b. (3 points) Which company generates higher returns from its assets? What is the source of the higher returns?

*Wrigley. Though it has lower profit margin (profit per \$ of sales), the company generates more sales per \$ of assets.*

- c. (6 points) Suppose it is determined in 2001 that Junior Mints cause amnesia in MBA students. Tootsie Roll must reduce the value of intangible assets (the Junior Mints brand name) by \$20 million. What would be the effect on each of the following ratios (increase, decrease, no effect)?

NO EFFECT      Quick Ratio [(Cash + AR + Inventory) / Current Liabilities]  
*(Cash/AR/Inv no effect, Current Liabilities no effect)*

DECREASE      Return on Equity (Net Income / Shareholders' Equity)  
*(NI decrease \$20, SE decrease \$20)*

INCREASE      Debt / Total Assets  
*(Debt no effect, Assets decrease \$20)*