

Inventory

Oil Wholesaler Limited owns a number of oil storage tanks. This year has been amazing for the firm because of the drastic increase in the price of a barrel of oil. The company is reporting record gross profits (up from \$50,000,000 last year) without a substantial change in the volume of production. Below is the purchase and sales data for the year ended September 30th, 2005:

Date	Description	Units (Barrels)	Cost	Proceeds
October 1, '04	Opening Balance	1,200,000 at \$25@	\$30,000,000	
November 1, '04	Purchase	900,000 at \$35@	31,500,000	
December 1, 04	Sold	(1,400,000) at \$41@		57,400,000
February 1, '05	Purchase	800,000 at \$45@	36,000,000	
May 1, '05	Sold	(1,300,000) at \$44@		57,200,000
July 1, '05	Purchase	1,800,000 at \$47@	84,600,000	
September 15, '05	Sold	(1,700,000) at \$72@		122,400,000
September 29, '05	Purchase	200,000 at \$67	13,400,000	
Sept. 30, '05 Total or Balance		500,000 Barrels	\$195,500,000	\$237,000,000

Oil Wholesaler uses a periodic inventory system.

Required:

(a) Calculate the periodic value of ending inventory and gross profit using the LIFO method.

(b) Calculate the periodic value of ending inventory and gross profit using the FIFO method.

- (c) Calculate the periodic value of ending inventory and gross profit using the weighted average method.
- (d) Calculate the inventory turnover ratio using the periodic LIFO and FIFO methods of inventory valuation. Also calculate the inventory turnover ratio using actual barrels of oil. Which (LIFO or FIFO) is the more representative of what really occurred? Explain your conclusion.
- (e) Which method of inventory valuation results in higher net income? Is it fair to assume that this method more fairly reflects managements' performance in this example? What extensively explains the record gross profits in the current year?

Temporary Investments

Noarc Ltd. purchased the following stocks on the stock market in 20x2:

	Cost	Market value- Dec. 31, 20x2
Beaver Foods Ltd.	\$75,000	\$57,500
Doggy Kennels Inc.	\$113,750	\$73,500
Mouse Traps Co.	\$38,400	\$41,600

On **January 1, 20x3**, Noarc purchased an additional 2,000 shares of Mouse Traps Co. for \$14/share. On **December 31, 20x3**, Noarc sold all of the Beaver Foods Ltd. shares for \$67,500. There were no other purchases or sales of shares in the year 20x3.

The **total market value** of all of the shares held by Noarc at **December 31, 20x3** was:

Doggy Kennels Inc.	\$78,750
Mouse Traps Co.	\$62,000

Required:

- Calculate the total valuation allowance required at **December 31, 20x2**.
- Prepare all of the journal entries required for the **sale and valuation** of temporary investments on **December 31, 20x3**.

Accounts Receivable

You are given the following information for Regal Company:

	As at December 31, 20x2 (including all adjustments)
Accounts receivable	\$285,000dr
Allowance for doubtful accounts	32,000cr

	For the year ended December 31, 20x3
Credit sales	\$1,450,000
Write-offs of accounts receivable	54,000
Recoveries of bad debts	2,000

	As at December 31, 20x3
Accounts receivable	
0-30 days	\$180,000dr
30-60 days	60,000dr
Over 60 days	<u>28,000dr</u>
	\$268,000dr

Management estimates Regal's bad debts expense to be calculated using **either** 2.2% of credit sales **or** 12% of accounts receivable 30-60 days and 35% of accounts receivable over 60 days old.

Required:

- a. Calculate the bad debt expense for Regal Company for the year ended **December 31, 20x3** using the following two methods:
 - i) Percentage of credit sales
 - ii) Percentage of aged accounts receivable
- b. Calculate the amount of cash received on account in 20x3.

Capital Assets

Woodchuck Co. purchased a saw to cut lumber on June 1st 20X1 from Blade Co. for \$150,000. Blade Co. delivered and installed the saw and it was put into use in July of 20X1. The delivery charge was \$10,000 and the installation charge was \$20,000.

Woodchuck estimated that the saw could cut 1,500,000 linear meters of lumber over its life. At the end of its life it would have no residual value. From July to December 31st, 20X1 (the year end) the saw cut 300,000 linear meters of lumber. From January 1st 20X2 to March 31st 20X2, the saw cut 50,000 linear meters of lumber.

Woodchuck Co. sold the saw March 31st 20X2 for \$120,000. The saw was replaced with a water pressure-cutting nozzle (nozzle). The nozzle cost \$90,000. It was estimated to last for ten years and have a residual value of \$5,000. Installation cost for the nozzle was \$10,000. The nozzle requires the replacement of its motor annually. Motors cost \$2,000 each. The motor is always replaced in December during the slow season. The nozzle was put into use the day the saw was sold.

Woodchuck Co uses the units of production method for depreciation for the saw and the straight-line method for depreciation of the nozzle.

Required:

- a) Calculate the depreciation expense for 20X1.
- b) Calculate the gain or loss on the sale of the saw in 20X2
- c) Calculate **all** of the expenses related to cutting lumber for 20X2

Revenue Recognition

Shock-stick Ltd.'s fiscal year ends on December 31st. On November 1, 20x0, Shock-stick received an order for 360,000 telephone poles to be delivered in batches of 10,000 at the end of each month, starting January 31, 20x1, to the government of Nunavut in northern Canada.

The Nunavut government paid Shock-stick \$50 million when the order was placed to show their good faith. \$200 million was paid at the beginning of 20x1 **and** \$200 million was paid at the beginning of 20x2. The final payment of \$90 million is to be paid one month after the final delivery of telephone poles.

Shock-stick Ltd. had never produced poles for use in extreme cold weather before, so decided to produce the poles as fast as possible so that they could determine quickly whether or not their traditional methods of manufacturing would be sufficient. By December 31, 20x1, Shock-stick had manufactured 150,000 at a cost of \$135 million.

PART A

Required:

- a) Calculate the **total** estimated costs to complete the contract (using and including actual costs to date).
- b) Calculate the net income for the year **20x1** using the percentage of completion method (based on the date the poles are **delivered**).

PART B

On January 1, 20x2, the Nunavut government requested that Shock-shift add a special coating to all of the poles (including those that were already delivered). This coating **increased** total estimated costs for the contract to \$470 million (including costs already incurred). Shock-stick delivered all of the poles in 20x2 on schedule.

Required:

- a) Calculate the net income for the year **20x2** using the percentage of completion method (based on the date the poles are **delivered**). (Hint: Use data already calculated in PART A) **(6 marks)**
- b) Calculate net income for the year **20x3** using the completed contract method (based on the date the poles are to be **delivered**). **(2 marks)**