

Problem 8-4

Beginning inventory contained \$10,000 units @\$8 each
Company uses perpetual inventory system and FIFO

Part 1: Determine the ending inventory and cost of goods sold at the end of the year

(a) Purchases (50,000 x \$10)	500,000	
Accounts payable		500,000
Accounts payable	500,000	
Purchase Discounts (2% x 500,000)		10,000
Cash (98% x 500,000)		490,000
Freight-in (50,000 x 0.50)	25,000	
Cash		25,000
(b) Accounts payable (1,000 x \$10.50)	10,500	
Purchase returns		10,500
(c) Accounts receivable (45,000 x \$18)	810,000	
Sales		810,000

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Problem 8-4 (continued)

Purchases	Units	Cost
Purchases	50,000@\$10	\$500,000
Add: Freight		25,000
Deduct: Discounts (490,000x2%)		(9,800)
Deduct: Returns (<u>1,000</u> x\$10.50)		(<u>10,500</u>)
Net Purchases	<u>49,000</u>	<u>\$504,700</u>

Net cost per unit purchased = $\$504,700 \div 49,000 = \10.30
OR: $\$10 \text{ unit} + \$.50 \text{ (freight)} - \$.20 \text{ (discount)} = \10.30

Beginning inventory	10,000 units @\$8.00 =	\$ 80,000
Net purchases	<u>49,000</u> units @\$10.30 =	<u>504,700</u>
Goods available		\$584,700
Ending Inventory	(<u>14,000</u>) @\$10.30	(<u>144,200</u>)
COGS	<u>45,000</u>	<u>\$440,500</u>

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Problem 8-4 (continued)

Part 2: Compute the net income before taxes, assuming operating expenses of \$150,000

Sales (45,000 units @\$18/unit)	\$810,000
Less: Cost of goods sold	(<u>440,500</u>)
Gross profit	\$369,500
Less: Operating expenses	(<u>150,000</u>)
Net income before taxes	<u>\$219,500</u>

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Problem 8-4 (continued)

Part 3: Record the year-end adjusting entry for the LIFO reserve, assuming the balance in the LIFO reserve at the beginning of the year is \$15,000.

Cost of ending inventory under LIFO – 14,000 units:

On hand at beginning of period	10,000 @ \$8.00	\$ 80,000
Purchases during the year	<u>4,000 @ \$10.30</u>	<u>41,200</u>
Total	14,000	<u>\$121,200</u>

LIFO Reserve

Perpetual FIFO (Part 1)	\$144,200	
Less: Periodic LIFO	<u>(121,200)</u>	
LIFO Reserve	\$ <u>23,000</u>	
COGS	8,000	
LIFO Reserve (\$23,000 - \$15,000)		8,000

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Problem 8-4 (continued)

Part 4: Determine the amount the company would report as income before taxes for the year under LIFO. Operating expenses other than those indicated in the above transaction amounted to \$150,000.

Sales (45,000 units @ \$18/unit)	\$810,000
Less: Cost of goods sold (440,500+8,000)	<u>(448,500)</u>
Gross profit	\$361,500
Less: Operating expenses	<u>(150,000)</u>
Net income before taxes	<u>\$211,500</u>

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