### Chapter 5

**Reporting and Analyzing Inventories**

#### EXERCISES

**Exercise 5-1 (10 minutes)**

**1. Answer: Barr Co.**

**The title will pass at “destination,” which is Lee Company’s receiving dock. Barr should show the $12,500 in its inventory at year-end as Barr retains title until the goods reach Lee Company.**

**2. Answer: Parris Company**

**The consignor is Parris Company. The consignee is Harlow Company. The consignor, Parris Company, should include any unsold and consigned goods in its inventory.**

**Exercise 5-2 (10 minutes)**

|  |  |
| --- | --- |
| **Cost of inventory (estate’s contents)** |  |
| **Price** | **$75,000** |
| **Transportation-in** | **2,400** |
| **Insurance on shipment** | **300** |
| **Cleaning and refurbishing** | **980** |
| **Total cost of inventory** | **$78,680** |

**Exercise 5-3 (35 minutes)**

**Ending Cost of Periodic Inventory Computations Inventory Goods Sold**

**a. Specific Identification—Periodic**

**(180 x $4.50) + (5 x $5.00) + (15 x $6) $ 925.00**

**$1,950 [Total Goods Available] - $925 [Ending Inventory] $1,025.00**

**b. Weighted Average—Periodic**

($1,950 / 380 units = $5.13\* average cost per unit)

**200 x $5.13 $1,026.00**

**180 x $5.13 $ 923.40**

**c. FIFO—Periodic**

**(180 x $4.50) + (20 x $5.00) $ 910.00**

**(140 x $6.00) + (40 x $5.00) $1,040.00**

**d. LIFO—Periodic**

**(140 x $6.00) + (60 x $5.00) $1,140.00**

**(180 x $4.50) $ 810.00**

**\*rounded to dollars and cents**

**Exercise 5-4 (20 minutes)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **LAKER COMPANY**  **Income Statements**  **For Month Ended January 31** | | | | | | | |
|  | | **Specific Identification** | | **Weighted Average** | **FIFO** | **LIFO** | |
| **Sales** | | **$2,700.00** | **$2,700.00** | | **$2,700.00** | | **$2,700.00** | |
| **(180 units x $15 price)** | |  |  | |  | |  | |
| **Cost of goods sold** | | **1,025.00** | **923.40** | | **1,040.00** | | **810.00** | |
| **Gross profit** | | **1,675.00** | **1,776.60** | | **1,660.00** | | **1,890.00** | |
| **Expenses** | | **1,250.00** | **1,250.00** | | **1,250.00** | | **1,250.00** | |
| **Income before taxes** | | **425.00** | **526.60** | | **410.00** | | **640.00** | |
| **Income tax expense (40%)** | | **170.00** | **210.64** | | **164.00** | | **256.00** | |
| **Net income** | **$ 255.00** | **$ 315.96** | | **$ 246.00** | | **$ 384.00** | |

**1. LIFO method results in the highest net income of $384.00.**

2. Weighted average net income of $315.96 falls between the FIFO net income of $246.00 and the LIFO net income of $384.00.

**3. If costs were rising instead of falling, then the FIFO method would yield the highest net income.**

**Exercise 5-5A (45 minutes)**

**a. Specific identification**

# Ending inventory—180 units from January 30, 5 units from January 20, and 15 units from beginning inventory

**Ending Cost of Specific Identification Inventory Goods Sold**

**(180 x $4.50) + (5 x $5.00) + (15 x $6.00) $ 925**

**$1,950 [Total Goods Available] - $925 [Ending Inventory] $1,025**

**b. Weighted Average—Perpetual**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Date** | **Goods Purchased** | **Cost of Goods Sold** | **Inventory Balance** | | |
| **1/1** |  |  | **140 @ $6.00** | **= $ 840.00** | |
| **1/10** |  | **100 @ $6.00 = $ 600.00** | **40 @ $6.00** | **= $ 240.00** | |
| **1/20** | **60 @ $5.00** |  | **40 @ $6.00** | **= $ 540.00** | |
|  |  |  | **60 @ $5.00** |
|  |  | **(avg. cost is $5.40)** | | |  |
| **1/25** |  | **80 @ $5.40 = $ 432.00** | **20 @ $5.40** | **= $ 108.00** | |
| **1/30** | **180 @ $4.50** |  | **20 @ $5.40** | **= $ 918.00** | |
|  |  | **$1,032.00** | **180 @ $4.50** |
|  |  | **(avg. cost is $4.59)** | | |  |

**c. FIFO—Perpetual**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Date** | **Goods Purchased** | | **Cost of Goods Sold** | | **Inventory Balance** | | |
| **1/1** | |  | |  | **140 @ $6.00** | **= $ 840.00** |
| **1/10** | |  | | **100 @ $6.00 = $ 600.00** | **40 @ $6.00** | **= $ 240.00** |
| **1/20** | | **60 @ $5.00** | |  | **40 @ $6.00** | **= $ 540.00** |
|  | |  | |  | **60 @ $5.00** |
| **1/25**  **= $ 440.00** |  | | **40 @ $6.00** | |  |  |
|  |  | | **40 @ $5.00** | | **20 @ $5.00** | **= $ 100.00** |
| **1/30** | **180 @ $4.50** | |  | | **20 @ $5.00** | **= $ 910.00** | |
|  |  | | **$1,040.00** | | **180 @ $4.50** |

**Exercise 5-5A (continued)**

**d. LIFO—Perpetual**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Date** | **Goods Purchased** | | | **Cost of Goods Sold** | | | **Inventory Balance** | | |
| **1/1** | |  | | |  | **140 @ $6.00** | | **= $ 840.00** |
| **1/10** | |  | | | **100 @ $6.00 = $ 600.00** | **40 @ $6.00** | | **= $ 240.00** |
| **1/20** | | **60 @ $5.00** | | |  | **40 @ $6.00** | | **= $ 540.00** |
|  | |  | | |  | **60 @ $5.00** | |
| **1/25**  **= $ 420.00** |  | | **60 @ $5.00** | | |  | |  |
|  |  | | **20 @ $6.00** | | | **20 @ $6.00** | | **= $ 120.00** |
| **1/30** | **180 @ $4.50** | |  | | | **20 @ $6.00** | | **= $ 930.00** | | |
|  |  | | **$1,020.00** | | | **180 @ $4.50** | |

**Alternate Solution Format for FIFO and LIFO Perpetual**

**Ending Cost of**

**Computations Inventory Goods Sold**

**c. FIFO**

**(180 x $4.50) + (20 x $5.00) $ 910.00**

**(100 x $6.00) + (40 x $6.00) + (40 x $5.00) $1,040.00**

**d. LIFO**

**(20 x $6.00) + (180 x $4.50) $ 930.00**

**(100 x $6.00) + [(60 x $5.00) + (20 x $6.00)] $1,020.00**

**Exercise 5-6A (20 minutes)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **LAKER COMPANY**  **Income Statements**  **For Month Ended January 31** | | | | | | | |
|  | | **Specific Identification** | | **Weighted Average** | **FIFO** | **LIFO** | |
| **Sales** | | **$2,700.00** | **$2,700.00** | | **$2,700.00** | | **$2,700.00** | |
| **(180 units x $15 price)** | |  |  | |  | |  | |
| **Cost of goods sold** | | **1,025.00** | **1,032.00** | | **1,040.00** | | **1,020.00** | |
| **Gross profit** | | **1,675.00** | **1,668.00** | | **1,660.00** | | **1,680.00** | |
| **Expenses** | | **1,250.00** | **1,250.00** | | **1,250.00** | | **1,250.00** | |
| **Income before taxes** | | **425.00** | **418.00** | | **410.00** | | **430.00** | |
| **Income tax expense (40%)** | | **170.00** | **167.20** | | **164.00** | | **172.00** | |
| **Net income** | **$ 255.00** | **$ 250.80** | | **$ 246.00** | | **$ 258.00** | |

**1. LIFO method results in the highest net income of $258.00.**

2. Weighted average net income of $250.80 falls between the FIFO net income of $246.00 and the LIFO net income of $258.00.

**3. If costs were rising instead of falling, then the FIFO method would yield the highest net income.**

**Exercise 5-7 (20 minutes)**

**Ending Cost of**

**Periodic Inventory System Inventory Goods Sold**

**a. FIFO—Periodic**

**(100 x $25) + (120 x $20) $4,900**

**(200 x $10) + (350 x $15) + (330 x $20) $13,850**

**b. LIFO—Periodic**

**(200 x $10) + (20 x $15) $2,300**

**(100 x $25) + (450 x $20) + (330 x $15) $16,450**

**c.**

**FIFO—Periodic Gross Margin**

|  |  |
| --- | --- |
| **Sales revenue (880 units sold x $40 selling price)** | **$35,200** |
| **Less: FIFO cost of goods sold** | **13,850** |
| **Gross margin** | **$21,350** |
|  |  |
| **LIFO—Periodic Gross Margin** |  |
| **Sales revenue (880 units sold x $40 selling price)** | **$35,200** |
| **Less: LIFO cost of goods sold** | **16,450** |
| **Gross margin** | **$18,750** |

**Exercise 5-8 (15 minutes)**

**a. Specific Identification method—Cost of goods sold**

|  |  |  |
| --- | --- | --- |
| **Cost of goods available for sale** |  | **$18,750** |
| **Ending inventory under specific identification** |  |  |
| **3/14 purchase ( 45 @ $15)** | **$ 675** |  |
| **7/30 purchase ( 75 @ $20)** | **1,500** |  |
| **10/26 purchase (100 @ $25)** | **2,500** |  |
| **Total ending inventory under specific identification** |  | **4,675** |
| **Cost of goods sold under specific identification** |  | **$14,075** |

**b. Specific Identification method—Gross margin**

|  |  |  |
| --- | --- | --- |
| **Sales revenue (880 units sold x $40 selling price)** |  | **$35,200** |
| **Less: Specific identification cost of goods sold** |  | **14,075** |
| **Gross profit** |  | **$21,125** |

**Exercise 5-9A (20 minutes)**

1. **FIFO—Perpetual**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Date** | | **Goods Purchased** | **Cost of Goods Sold** | **Inventory Balance** | |
| **1/1** | |  |  | **200 @ $10** | **= $ 2,000** |
| **1/10** | |  | **150 @ $10 = $ 1,500** | **50 @ $10** | **= $ 500** |
| **3/14** | | **350 @ $15 = $5,250** |  | **50 @ $10** | **= $ 5,750** |
|  | |  |  | **350 @ $15** |
| **3/15** | |  | **50 @ $10** | **100 @ $15** | **= $ 1,500** |
|  | |  | **250 @ $15 = $ 4,250** |  |  |
| **7/30** | | **450 @ $20 = $9,000** |  | **100 @ $15** | **= $10,500** |
|  | |  |  | **450 @ $20** |
| **10/5** | |  | **100 @ $15** |  |  |
|  | |  | **330 @ $20 = $ 8,100** | **120 @ $20** | **= $ 2,400** |
| **10/26** | | **100 @ $25 = $2,500** |  | **120 @ $20** |  |
|  | |  | **\_\_\_\_\_\_** | **100 @ $25** | **= $ 4,900** |
|  | | **$13,850** |  |  |

1. **LIFO—Perpetual**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Date** | | **Goods Purchased** | **Cost of Goods Sold** | | **Inventory Balance** | |
| **1/1** | |  |  | | **200 @ $10** | **= $ 2,000** |
| **1/10** | |  | **150 @ $10 = $ 1,500** | | **50 @ $10** | **= $ 500** |
| **3/14** | | **350 @ $15 = $ 5,250** |  | | **50 @ $10** | **= $ 5,750** |
|  | |  |  | | **350 @ $15** |
| **3/15** | |  |  | | **50 @ $10** | **= $ 1,250** |
|  | |  | **300 @ $15 = $ 4,500** | | **50 @ $15** |
| **7/30** | | **450 @ $20 = $ 9,000** |  | | **50 @ $10** |  |
|  | |  |  | | **50 @ $15** | **= $ 10,250** |
|  | |  |  | | **450 @ $20** |  |
| **10/5** | |  |  | | **50 @ $10** |  |
|  | |  | **430 @ $20 = $8,600** | | **50 @ $15** | **= $ 1,650** |
|  | |  |  | | **20 @ $20** |  |
| **10/26** | | **100 @ $25 = $ 2,500** |  | | **50 @ $10** |  |
|  | |  |  | | **50 @ $15** |  |
|  | |  |  | | **20 @ $20** | **= $ 4,150** |
|  | |  | **\_\_\_\_\_\_\_** | **100 @ $25** | |  |
|  | | **$14,600** |  | |  |

**Exercise 5-9A *(Concluded)***

**Alternate Solution Format**

**Ending Cost of Inventory Goods Sold**

**a. FIFO**

**(100 x $25) + (120 x $20) $4,900**

**(150 x $10) + (50 x $10) + (250 x $15) +**

**(100 x $15)+ (330 x $20) $13,850**

**b. LIFO**

**(50 x $10) + (50 x $15) + (20 x $20) + (100 x $25) $4,150**

**(150 x $10) + (300 x $15) + (430 x $20) $14,600**

1. **Gross Margin Computations**

**FIFO Gross Margin**

|  |  |  |
| --- | --- | --- |
| **Sales revenue (880 units sold x $40 selling price)** | | **$35,200** |
| **Less: FIFO cost of goods sold** | | **13,850** |
| **Gross profit** | | **$21,350** |
|  | |  |
| **LIFO Gross Margin** | |  |
| **Sales revenue (880 units sold x $40 selling price)** | | **$35,200** |
| **Less: LIFO cost of goods sold** | | **14,600** |
| **Gross profit** | **$20,600** |

**Exercise 5-10 (15 minutes)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | |  | **Per Unit** | | | | **Total** | | **Total** | | **LCM Applied to Items** | | | |  | |
| Inventory Items | | Units | | | **Cost** | | **Market** | | **Cost** | | **Market** | |
| Helmets | | **24** | | | **$50** | | **$54** | | **$1,200** | | **$1,296** | | **$1,200** | |
| **Bats** | | **17** | | | **78** | | **72** | | **1,326** | | **1,224** | | **1,224** | |
| **Shoes** | | **38** | | | **95** | | **91** | | **3,610** | | **3,458** | | **3,458** | |
| **Uniforms** | | **42** | | | **36** | | **36** | | **1,512** | | **1,512** | | **1,512** | |  | | |
|  | |  | | |  | |  | | **$7,648** | | **$7,490** | | **$7,394** | |  | |

**Lower of cost or market of inventory by product = $7,394**

**Exercise 5-11 (20 minutes)**

**1. a. LIFO ratio computations**

**LIFO current ratio (Year 2) = $220/$200 = 1.1**

**LIFO inventory turnover (Year 2) = $740/ [($110+$160)/2] = 5.5**

**LIFO days’ sales in inventory (Year 2) = ($160/$740) x 365 = 78.9 days**

**b. FIFO ratio computations**

**FIFO current ratio (Year 2) = $300\*/$200 = 1.5**

**FIFO inventory turnover (Year 2) = $660/ [($110+$240)/2] = 3.8**

**FIFO days’ sales in inventory (Year 2) = ($240/$660) x 365= 132.7 days**

***\*$220 + ($240 - $160)***

**2. The use of LIFO versus FIFO for Cruz markedly impacts the ratios computed. Specifically, LIFO makes Cruz appear worse in comparison to FIFO numbers on the current ratio (1.1 vs. 1.5) but better on inventory turnover (5.5 vs. 3.8) and days’ sales in inventory (78.9 vs. 132.7). These results can be generalized. That is, when costs are rising and quantities are stable or rising, the FIFO inventory exceeds LIFO inventory. This suggests that (relative to FIFO) the LIFO current ratio is understated, the LIFO inventory turnover is overstated, and the days’ sales in inventory is understated. Overall, users prefer the FIFO numbers for these ratios because they are considered more representative of current replacement costs for inventory.**

**Exercise 5-12 (25 minutes)**

**1. Correct gross profit = $850,000 - $500,000 = $350,000 (for each year)**

**2. Reported income figures**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Year 2017** | | **Year 2018** | | **Year 2019** | |
| **Sales** |  | **$850,000** |  | **$850,000** |  | **$850,000** |
| **Cost of goods sold** |  |  |  |  |  |  |
| **Beginning inventory** | **$250,000** |  | **$230,000** |  | **$250,000** |  |
| **Cost of purchases** | **500,000** |  | **500,000** |  | **500,000** |  |
| **Good available for sale** | **750,000** |  | **730,000** |  | **750,000** |  |
| **Ending inventory** | **230,000** |  | **250,000** |  | **250,000** |  |
| **Cost of goods sold** |  | **520,000** |  | **480,000** |  | **500,000** |
| Gross profit |  | **$330,000** |  | **$370,000** |  | **$350,000** |

**Exercise 5-13 (20 minutes)**

**Year 2 Inventory turnover Year 2 Days' Sales in Inventory**

**$426,650/[($92,500 + $87,750)/2] $87,750/$426,650 x 365 days = 75.1 days**

**= 4.7 times**

**Year 3 Inventory turnover Year 3 Days' Sales in Inventory**

**$643,825/[($87,750 + $97,400)/2]**

**= 7.0 times $97,400/$643,825 x 365 days = 55.2 days**

***Analysis comment*: It appears that during a period of increasing sales, Palmer has been efficient in controlling its amount of inventory. Specifically, inventory turnover increased by 2.3 times (7.0 - 4.7) from Year 2 to Year 3. In addition, days' sales in inventory decreased by 19.9 days (75.1 - 55.2).**

**Exercise 5-14 (20 minutes)**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Ending Inventory** | **Cost of Goods Sold** | |
| **a. Specific identification** |  | |  |
| **(50 x $2.90) + (50 x $2.80) + (50 x $2.50)** | **$410.00** | |  |
| **$3,855 [Goods Available] - $410.00 [Ending Inventory]** |  | | **$3,445.00** |
| **b. Weighted average ($3,855/1,500 = $2.57)** |  | |  |
| **150 x $2.57 [rounded to cents]** | **385.50** | |  |
| **$3,855 [Goods Available] - $385.50 [Ending Inventory]** |  | | **3,469.50** |
| **c. FIFO** |  | |  |
| **(150 x $2.90)** | **435.00** | |  |
| **(96 x $2.00) + (220 x $2.25) + (544 x $2.50) +   (480 x $2.80) + (10 x 2.90)** |  | | **3,420.00** |
| **d. LIFO** |  | |  |
| **(96 x $2.00) + (54 x $2.25)** | **313.50** | |  |
| **(160 x $2.90) + (480 x $2.80) + (544 x $2.50) +   (166 x $2.25)** |  | | **3,541.50** |

***Income effect*: FIFO provides the lowest cost of goods sold, the highest gross profit, and the highest net income, which is not unexpected during a period of rising costs.**

**Exercise 5-15 (20 minutes)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Periodic Inventory** | **Ending Inventory** | **Cost of Goods Sold** | |
| **a. Specific Identification** |  | |  |
| **(50 x $2.80) + (10 x $2.00)** | **$160.00** | |  |
| **$2,540.00 [Goods Available] - $160.00 [Ending Inventory]** |  | | **$2,380.00** |
| **b. Weighted Average ($2,540.00/1,000 = $2.54)** |  | |  |
| **(60 x $2.54)** | **152.40** | |  |
| **$2,540.00 [Goods Available] - $152.40 [Ending Inventory]** |  | | **2,387.60** |
| **c. FIFO** |  | |  |
| **(22 x $2.00) + (38 x 2.30)** | **131.40** | |  |
| **(138 x $3.00) + (300 x $2.80) + (502 x $2.30)** |  | | **2,408.60** |
| **d. LIFO** |  | |  |
| **(60 x $3.00)** | **180.00** | |  |
| **(22 x $2.00) + (540 x $2.30) + (300 x $2.80) +   (78 x $3.00)** |  | | **2,360.00** |

***Income effect*: FIFO results in the highest cost of goods sold, which produces the lowest gross profit and lowest net income. A lower income from using FIFO would be expected during a period of declining costs.**

**Exercise 5-16B (20 minutes)**

|  |  |  |  |
| --- | --- | --- | --- |
|  | | **At Cost** | **At Retail** |
| **Goods available for sale** | |  |  |
| Beginning inventory | | **$ 63,800** | **$128,400** |
| **Cost of goods purchased** | | **115,060** | **196,800** |
| **Goods available for sale** | | **$178,860** | **325,200** |
| **Deduct net sales at retail** | |  | **260,000** |
| **Ending inventory at retail** | |  | **$ 65,200** |
| **Cost ratio: ($178,860/$325,200) = 0.55** | |  |  |
| **Ending inventory at cost ($65,200 x 55%)** | **$ 35,860** |  |

**Exercise 5-17B (20 minutes)**

|  |  |  |
| --- | --- | --- |
| **Goods available for sale** |  |  |
| Beginning Inventory, Jan. 1 | **$ 225,000** | |
| **Net cost of goods purchased\*** | **802,250** | |
| **Goods available for sale** | **1,027,250** | |
| **Less estimated cost of goods sold** |  |  |
| **Net sales** |  | **$1,000,000** |
| **Estimated cost of goods sold** |  |  |
| **[$1,000,000 x (1 – 30%)]** | **(700,000)** | |
| **Estimated March 31 inventory** | **$ 327,250** | |

**\* $795,000 - $11,550 + $18,800 = $802,250**

**Exercise 5-18 (15 minutes)**

**1. Samsung generally applies the (weighted) average cost assumption when assigning costs to its inventories. An exception is for its materials-in-transit.**

**2. Under IFRS, Samsung would reverse inventory valuation losses if inventory values increased in subsequent periods. In this case, the reversal for 2017 would be ￦550 million. However, had Samsung followed U.S. GAAP, it would not have recorded the ￦550 million reversal in 2017.**

**Exercise 5-19 (20 minutes)**

**Ending Cost of**

**Periodic Inventory System Inventory Goods Sold**

***Instructor note*: The assignment reports there are 220 units available for sale and that 176 units are sold. Thus, we see that 44 units remain in inventory.**

**a. FIFO—Periodic**

**(20 x $5) + (24 x $4) $196**

**(40 x $2) + (70 x $3) + (66 x $4) $554**

**b. LIFO—Periodic**

**(40 x $2) + (4 x $3) $92**

**(20 x $5) + (90 x $4) + (66 x $3) $658**

**c.**

**FIFO—Periodic Gross Margin**

|  |  |
| --- | --- |
| **Sales revenue (176 units sold x $8 selling price)** | **$1,408** |
| **Less: FIFO cost of goods sold** | **554** |
| **Gross margin** | **$ 854** |
|  |  |
| **LIFO—Periodic Gross Margin** |  |
| **Sales revenue (176 units sold x $8 selling price)** | **$1,408** |
| **Less: LIFO cost of goods sold** | **658** |
| **Gross margin** | **$ 750** |

**Exercise 5-20A (20 minutes)**

**a. FIFO—Perpetual**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Date** | | **Goods Purchased** | **Cost of Goods Sold** | **Inventory Balance** | |
| **1/1** | |  |  | **40 @ $2** | **= $ 80** |
| **1/3** | |  | **30 @ $2 = $ 60** | **10 @ $2** | **= $ 20** |
| **2/14** | | **70 @ $3 = $210** |  | **10 @ $2** | **= $230** |
|  | |  |  | **70 @ $3** |
| **2/15** | |  | **10 @ $2** | **20 @ $3** | **= $ 60** |
|  | |  | **50 @ $3 = $170** |  |  |
| **6/30** | | **90 @ $4 = $360** |  | **20 @ $3** | **= $420** |
|  | |  |  | **90 @ $4** |
| **11/6** | |  | **20 @ $3** |  |  |
|  | |  | **66 @ $4 = $324** | **24 @ $4** | **= $ 96** |
| **11/19** | | **20 @ $5 = $100** |  | **24 @ $4** |  |
|  | |  | **\_\_\_\_\_\_** | **20 @ $5** | **= $196** |
|  | | **$554** |  |  |

**b. LIFO—Perpetual**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Date** | | **Goods Purchased** | **Cost of Goods Sold** | | **Inventory Balance** | |
| **1/1** | |  |  | | **40 @ $2** | **= $ 80** |
| **1/3** | |  | **30 @ $2 = $ 60** | | **10 @ $2** | **= $ 20** |
| **2/14** | | **70 @ $3 = $ 210** |  | | **10 @ $2** | **= $230** |
|  | |  |  | | **70 @ $3** |
| **2/15** | |  |  | | **10 @ $2** | **= $ 50** |
|  | |  | **60 @ $3 = $ 180** | | **10 @ $3** |
| **6/30** | | **90 @ $4 = $ 360** |  | | **10 @ $2** |  |
|  | |  |  | | **10 @ $3** | **= $410** |
|  | |  |  | | **90 @ $4** |  |
| **11/6** | |  |  | | **10 @ $2** |  |
|  | |  | **86 @ $4 = $344** | | **10 @ $3** | **= $ 66** |
|  | |  |  | | **4 @ $4** |  |
| **11/19** | | **20 @ $5 = $ 100** |  | | **10 @ $2** |  |
|  | |  |  | | **10 @ $3** |  |
|  | |  |  | | **4 @ $4** | **= $166** |
|  | |  | **\_\_\_\_\_\_\_** | **20 @ $5** | |  |
|  | | **$584** |  | |  |

**Exercise 5-20A *(Concluded)***

**Alternate Solution Format**

**Ending Cost of Inventory Goods Sold**

**a. FIFO**

**(20 x $5) + (24 x $4) $196**

**(30 x $2) + (10 x $2) + (50 x $3) +**

**(20 x $3)+ (66 x $4) $554**

**b. LIFO**

**(10 x $2) + (10 x $3) + (4 x $4) + (20 x $5) $166**

**(30 x $2) + (60 x $3) + (86 x $4) $584**

**c. Gross Margin Computations**

**FIFO Gross Margin**

|  |  |  |
| --- | --- | --- |
| **Sales revenue (176 units sold x $8 selling price)** | | **$1,408** |
| **Less: FIFO cost of goods sold** | | **554** |
| **Gross margin** | | **$ 854** |
|  | |  |
| **LIFO Gross Margin** | |  |
| **Sales revenue (176 units sold x $8 selling price)** | | **$1,408** |
| **Less: LIFO cost of goods sold** | | **584** |
| **Gross margin** | **$ 824** |