EXERCISE 6-9

	Cost	Market	Lower -of-Cost -or-Market:
Cameras			
Minolta	$ 850	$ 780	$ 780
Canon	900	912	900
Total	1,750	1,692	
Light meters			
Vivitar	1,500	1,380	1,380
Kodak	1,680	1,890	1,680
Total	3,180	3,270	
Total inventory	$4,930	$4,962	$4,740

EXERCISE 6-10

	Cost	Market	Lower -of-Cost- or-Market:
Cameras	$ 6,500	$ 7,100	$ 6,500
DVD players	11,250	10,050	10,050
Ipods	10,000	9,750	9,750
Total inventory	$27,750	$26,900	$26,300

EXERCISE 6-11

	2013	2014
Beginning inventory	$ 20,000	$ 27,000
Cost of goods purchased	150,000	175,000
Cost of goods available for sale	170,000	202,000
Corrected ending inventory	27,000[a]	41,000[b]
Cost of goods sold	$143,000	$161,000

[a]$30,000 – $3,000 = $27,000. [b]$35,000 + $6,000 = $41,000.

EXERCISE 6-14

(a)	Alpha Company	Omega Company
Inventory Turnover	$190,000 / ($45,000 + $55,000)/2 = 3.80	$292,000 / ($71,000 + $69,000)/2 = 4.17

Days in Inventory **365/3.80 = 96 days** **365/4.17 = 88 days**

(b) Omega Company is moving its inventory more quickly, since its inventory turnover is higher, and its days in inventory is lower.

PROBLEM 6-1A

(a) The sale will be recorded on February 26. The goods (cost, $800) should be excluded from Austin's February 28 inventory.

(b) Austin owns the goods once they are shipped on February 26. Include inventory of $480.

(c) Include $650 in inventory.

(d) Exclude the items from Austin's inventory. Title remains with the consignor.

(e) Title of the goods does not transfer to Austin until March 2. Exclude this amount from the February 28 inventory.

(f) Title to the goods does not transfer to the customer until March 2. The $200 cost should be included in ending inventory.

PROBLEM 6-2A

(a) **COST OF GOODS AVAILABLE FOR SALE**

Date	Explanation	Units	Unit Cost	Total Cost
Oct. 1	Beginning Inventory	2,000	$7	$ 14,000
3	Purchase	2,500	8	20,000
9	Purchase	3,500	9	31,500
19	Purchase	3,000	10	30,000
25	Purchase	4,000	11	44,000
	Total	15,000		$139,500

(b) **FIFO**

(1) Ending Inventory

Date	Units	Unit Cost	Total Cost
Oct. 25	4,000	$11	$44,000
19	100	10	1,000
	4,100*		$45,000

(2) Cost of Goods Sold

Cost of goods available for sale	$139,500
Less: Ending inventory	45,000
Cost of goods sold	$ 94,500

*15,000 – 10,900 = 4,100

Proof of Cost of Goods Sold

Date	Units	Unit Cost	Total Cost
Oct. 1	2,000	$7	$14,000
3	2,500	8	20,000
9	3,500	9	31,500
19	2,900	10	29,000
	10,900		$94,500

LIFO

(1) Ending Inventory

Date	Units	Unit Cost	Total Cost
Oct. 1	2,000	$7	$14,000
3	2,100	8	16,800
	4,100		$30,800

(2) Cost of Goods Sold

Cost of goods available for sale	$139,500
Less: Ending inventory	30,800
Cost of goods sold	$108,700

PROBLEM 6-2A (Continued)

Proof of Cost of Goods Sold

Date	Units	Unit Cost	Total Cost
Oct. 25	4,000	$11	$ 44,000
19	3,000	10	30,000
9	3,500	9	31,500
3	400	8	3,200
	10,900		$108,700

AVERAGE COST

(1) Ending Inventory

$139,500 ÷ 15,000 = $9.30

Units	Unit Cost	Total Cost
4,100	$9.30	$38,130

(2) Cost of Goods Sold

Cost of goods available for sale	$139,500
Less: Ending inventory	38,130
Cost of goods sold	$101,370

(c) (1) FIFO results in the highest inventory amount for the balance sheet, $45,000.

(2) LIFO results in the highest cost of goods sold, $108,700.

PROBLEM 6-3A

(a) COST OF GOODS AVAILABLE FOR SALE

Date	Explanation	Units	Unit Cost	Total Cost
1/1	Beginning Inventory	150	$20	$ 3,000
3/15	Purchase	400	23	9,200
7/20	Purchase	250	24	6,000
9/4	Purchase	350	26	9,100
12/2	Purchase	100	29	2,900
	Total	1,250		$30,200

(b) FIFO

(1) Ending Inventory

Date	Units	Unit Cost	Total Cost
12/2	100	$29	$2,900
9/4	150	26	3,900
	250		$6,800

(2) Cost of Goods Sold

Cost of goods available for sale	$30,200
Less: Ending inventory	6,800
Cost of goods sold	$23,400

Proof of Cost of Goods Sold

Date	Units	Unit Cost	Total Cost
1/1	150	$20	$ 3,000
3/15	400	23	9,200
7/20	250	24	6,000
9/4	200	26	5,200
	1,000		$23,400

LIFO

(1) Ending Inventory

Date	Units	Unit Cost	Total Cost
1/1	150	$20	$3,000
3/15	100	23	2,300
	250		$5,300

(2) Cost of Goods Sold

Cost of goods available for sale	$30,200
Less: Ending inventory	5,300
Cost of goods sold	$24,900

PROBLEM 6-3A (Continued)

Proof of Cost of Goods Sold

Date	Units	Unit Cost	Total Cost
12/2	100	$29	$ 2,900
9/4	350	26	9,100
7/20	250	24	6,000
3/15	300	23	6,900
	1,000		$24,900

AVERAGE COST

(1) Ending Inventory

$30,200 ÷ 1,250 = $24.16

Units	Unit Cost	Total Cost
250	$24.16	$6,040

(2) Cost of Goods Sold

Cost of goods available for sale	$30,200
Less: Ending inventory	6,040
Cost of goods sold	$24,160

Proof of Cost of Goods Sold

1,000 units X $24.16 = $24,160

(c) (1) FIFO results in the highest inventory amount, $6,800, as shown in (b) above.

(2) LIFO produces the highest cost of goods sold, $24,900 as shown in (b) above.

PROBLEM 6-4A

(a)

Felipe INC.
Condensed Income Statements
For the Year Ended December 31, 2014

	FIFO	LIFO
Sales revenue	$747,000	$747,000
Cost of goods sold		
Beginning inventory	14,000	14,000
Cost of goods purchased	466,000	466,000
Cost of goods available for sale	480,000	480,000
Ending inventory	45,900[a]	36,000[b]
Cost of goods sold	434,100	444,000
Gross profit	312,900	303,000
Operating expenses	130,000	130,000
Income before income taxes	182,900	173,000
Income tax expense (40%)	73,160	69,200
Net income	$109,740	$103,800

[a] 17,000 X $2.70 = $45,900.
[b] $14,000 + (10,000 X $2.20) = $36,000.

(b) **(1)** The FIFO method produces the most meaningful inventory amount for the balance sheet because the units are costed at the most recent purchase prices.

(2) The LIFO method produces the most meaningful net income because the cost of the most recent purchases are matched against sales.

(3) The FIFO method is most likely to approximate actual physical flow because the oldest goods are usually sold first to minimize spoilage and obsolescence.

(4) There will be $3,960 additional cash available under LIFO because income taxes are $69,200 under LIFO and $73,160 under FIFO.

(5) Gross profit under the average cost method will be: (a) lower than FIFO and (b) higher than LIFO.

PROBLEM 6-5A

(a) Cost of Goods Available for Sale

Date	Explanation	Units	Unit Cost	Total Cost
June 1	Beginning Inventory	40	$40	$ 1,600
June 4	Purchase	135	44	5,940
June 18	Purchase	55	46	2,530
June 18	Purchase return	(10)	46	(460)
June 28	Purchase	30	50	1,500
	Total	250		$11,110

Ending Inventory in Units:

Units available for sale	250
Sales (110 – 15 + 65)	160
Units remaining in ending inventory	90

Sales Revenue

Date	Units	Unit Price	Total Sales
June 10	110	$70	$ 7,700
11	(15)	70	(1,050)
25	65	75	4,875
	160		$11,525

(1) LIFO

(i) Ending Inventory

June 1	40 @ $40	$1,600
4	50 @ 44	2,200
	90	$3,800

(ii) Cost of Goods Sold

Cost of goods available for sale	$11,110
Less: Ending inventory	3,800
Cost of goods sold	$ 7,310

(iii) Gross Profit

Sales revenue	$11,525
Cost of goods sold	7,310
Gross profit	$ 4,215

(iv) Gross Profit Rate

$$\frac{\text{Gross profit}}{\text{Net sales}} = \frac{\$\ 4,215}{\$11,525} = 36.6\%$$

PROBLEM 6-5A (Continued)

(2) FIFO

(i) Ending Inventory

June 28	30 @ $50		$1,500
18	45 @ $46		2,070
4	15 @ $44		660
	90		$4,230

(ii) Cost of Goods Sold

Cost of goods available for sale	$11,110
Less: Ending inventory	4,230
Cost of goods sold	$ 6,880

(iii) Gross Profit

Sales revenue	$11,525
Cost of goods sold	6,880
Gross profit	$ 4,645

(iv) Gross Profit Rate

$$\frac{\text{Gross profit}}{\text{Net sales}} \quad \frac{\$\ 4,645}{\$11,525} = 40.3\%$$

(3) Average-Cost

Weighted-average cost per unit: $\dfrac{\text{Cost of goods available for sale}}{\text{Units available for sale}}$

$$\frac{\$11,110}{250} = \$44.44$$

(i) Ending Inventory

90 units @$44.44	3,999.60

(ii) Cost of Goods Sold

Cost of goods available for sale	$11,110.00
Less: Ending inventory	3,999.60
Cost of goods sold	$ 7,110.40

(iii) Gross Profit

Sales revenue	$11,525.00
Cost of goods sold	7,110.40
Gross profit	$ 4,414.60

(iv) Gross Profit Rate

$$\frac{\text{Gross profit}}{\text{Net sales}} \quad \frac{\$\ 4,414.60}{\$11,525.00} = 38.3\%$$

(b) In this period of rising prices, LIFO gives the highest cost of goods sold and the lowest gross profit. FIFO gives the lowest cost of goods sold and the highest gross profit.

PROBLEM 6-6A

(a)

BARTON INC.
Income Statement (partial)
For the Year Ended December 31, 2014

	Specific Identification	FIFO	LIFO
Sales revenue[a]	$8,915	$8,915	$8,915
Beginning inventory	1,200	1,200	1,200
Purchases[b]	6,505	6,505	6,505
Cost of goods available for sale	7,705	7,705	7,705
Ending inventory[c]	2,505	2,720	2,175
Cost of goods sold	5,200	4,985	5,530
Gross profit	$3,715	$3,930	$3,385

[a](2,300 @ $1.05) + (5,200 @ $1.25)
[b](2,500 @ $ .65) + (4,000 @ $.72) + (2,500 @ $.80)
[c]Specific identification ending inventory consists of:

Beginning inventory (2,000 liters – 1,000 – 450)	550 @ $.60	$ 330.00
March 3 purchase (2,500 liters – 1,300 – 550)	650 @ $.65	422.50
March 10 purchase (4,000 liters – 2,900)	1,100 @ $.72	792.00
March 20 purchase (2,500 liters – 1,300)	1,200 @ $.80	960.00
	3,500 liters	$2,504.50

FIFO ending inventory consists of:

March 20 purchase	2,500 @ $.80	$2,000
March 10 purchase	1,000 @ $.72	720
	3,500 liters	$2,720

LIFO ending inventory consists of:

Beginning inventory	2,000 @ $.60	$1,200
March 3 purchase	1,500 @ $.65	975
	3,500 liters	$2,175

(b) Companies can choose a cost flow method that produces the highest possible cost of goods sold and lowest gross profit to justify price increases. In this example, LIFO produces the lowest gross profit and best support to increase selling prices.

PROBLEM 6-7A

(a)

Sherlynn CO.
Condensed Income Statement
For the Year Ended December 31, 2014

	FIFO	LIFO
Sales revenue	$700,000	$700,000
Cost of goods sold		
Beginning inventory	45,000	45,000
Cost of goods purchased	532,000	532,000
Cost of goods available for sale	577,000	577,000
Ending inventory	168,000[a]	147,000[b]
Cost of goods sold	409,000	430,000
Gross profit	291,000	270,000
Operating expenses	140,000	140,000
Income before income taxes	151,000	130,000
Income tax expense (30%)	45,300	39,000
Net income	$105,700	$ 91,000

[a](30,000 @ $5.60) = $168,000.
[b](10,000 @ $4.50) + (20,000 @ $5.10) = $147,000.

(b) Answers to questions:

(1) The FIFO method produces the most meaningful inventory amount for the balance sheet because the units are costed at the most recent purchase prices.

(2) The LIFO method produces the most meaningful net income because the costs of the most recent purchases are matched against sales.

(3) The FIFO method is most likely to approximate actual physical flow because the oldest goods are usually sold first to minimize spoilage and obsolescence.

(4) There will be $6,300 additional cash available under LIFO because income taxes are $39,000 under LIFO and $45,300 under FIFO.

(5) The illusionary gross profit is $21,000 or ($291,000 – $270,000). Under LIFO, Sherlynn Co. has recovered the current replacement cost of the units ($430,000), whereas under FIFO, it has only recovered the earlier costs ($409,000). This means that, under FIFO, the company must reinvest at least $21,000 of the gross profit to replace the units used.