E7-4

Simply rearrange the cost of goods sold equation

$$BI + P - EI = CGS$$
$$P = CGS - BI + EI$$

	Cost of goods sold	$1,408,848,000
–	Beginning inventory	(399,795,000)
+	Ending inventory	424,393,000
	Purchases	$1,433,446,000

E7-10

1.

	FIFO	LIFO	AC
Cost of goods sold			
Beginning inventory (400 units @ $30)	$12,000	$12,000	$12,000
Purchases (400 units @ $20)	8,000	8,000	8,000
Goods available for sales	20,000	20,000	20,000
Ending inventory (500 units)	11,000	14,000	12,500
Cost of goods sold	$9,000	$6,000	$7,500
Sales, 300 units; unit sales price, $50			
Expenses, $2,500			

*Computation of ending inventory:

FIFO: (400 units x $20) + (100 units x $30) = $11,000

LIFO: (400 units x $30) + (100 units x $20) = $14,000

Average: [(400 units @ $30) + (400 units @ $20)] ÷ 800 units =
$20,000 ÷ 800 units = $25 per unit.
$25 x 500 units = $12,500.

**Cost of goods sold computations:

FIFO: (300 units @ $30) = $9,000.

LIFO: (300 units @ $20) = $6,000.

Average: [(400 units @ $30) + (400 units @ $20)] ÷ 800 units =
$20,000 ÷ 800 units = $25 per unit.
$25 x 300 units = $7,500.

2.

	FIFO	LIFO	Average Cost
Sales revenue	$15,000	$15,000	$15,000
Cost of goods sold	9,000	6,000	7,500
Gross profit	6,000	9,000	7,500
Expenses	2,500	2,500	2,500
Pretax income	3,500	6,500	5,000

3.

Ranking in order of favorable cash flow: The higher rankings are given to the methods that produce the **lower** income tax expense because the lower the income tax expense the **higher** the cash savings.

(1) FIFO–produces the lowest pretax income and as a result the lowest income tax. This result causes the highest cash savings on income tax.

(2) Weighted average–produces next lower pretax income.

(3) LIFO–produces the highest pretax income, hence the highest amount of cash to be paid for income tax.

The above comparative effects occurred because prices were **falling**. If prices were rising the three methods would have produced the opposite ranking.

E7-13

1.

Item	Quantity	Total cost			Total Market			LCM Valuation
A	30	X 20	=	$ 600	X 15	=	$ 450	$ 450
B	55	X 40	=	2,200	X 44	=	2,420	2,200
C	35	X 52	=	1,820	X 55	=	1,925	1,820
D	15	X 27	=	405	X 32	=	480	405
	Total			$			$5,275	$ 4,875

Inventory valuation that should be used (LCM) $4,875

2.

The write-down to lower of cost or market will increase cost of goods sold expense by the amount of the write-down, $150:

Total Cost – LCM Valuation = Write-down

$5,025 – $4,875 = $150 Write-down

E7-19

1.
Ending Inventory in the current year=524.0

2.

Beginning LIFO reserve (excess of FIFO over LIFO)	$ 16.0
Less: Ending LIFO reserve (excess of FIFO over LIFO)	18.3
Difference in cost of goods sold under FIFO	(2.3)
Cost of goods sold under LIFO	6,548.7
Cost of goods sold under FIFO	$ 6,546.4

3.
When unit costs are rising, LIFO produces lower net income and a lower inventory valuation than FIFO. During a period of rising prices, using LIFO often reduces a company's tax liability. This might be the reason why BorgWarner management chose to use LIFO for certain of its inventories.