E7–2.
(Italics for missing amounts only.)

	Case A		Case B		Case C	
Net sales revenue.....		$7,500		$***4,800***		$5,050
Beginning inventory	$11,200		$ 7,000		$ 4,000	
Purchases	4,500		***8,050***		9,500	
Goods available for sale .	***15,700***		15,050		13,500	
Ending inventory.....	9,000		11,050		***9,300***	
Cost of goods sold.....		***6,700***		***4,000***		4,200
Gross profit		***800***		800		***850***
Expenses		300		***1,000***		700
Pretax income (loss).....		$ 500		$ (200)		$ 150

E7–9.

Req. 1

	FIFO	*LIFO*	*Average Cost*
Cost of goods sold:			
Beginning inventory (400 units @ $28)	$11,200	$11,200	$11,200
Purchases (475 units @ $35)	16,625	16,625	16,625
Goods available for sale	27,825	27,825	27,825
Ending inventory (525 units)*	18,025	15,575	16,695
Cost of goods sold (350 units)**	$ 9,800	$12,250	$11,130

*Computation of ending inventory:

FIFO: (475 units x $35) + (50 units x $28) = $18,025

LIFO: (400 units x $28) + (125 units x $35) = $15,575

Average: [(400 units @ $28) + (475 units @ $35)] ÷ 875 units =
$27,825 ÷ 875 units = $31.80 per unit.
$31.80 x 525 units = $16,695.

**Cost of goods sold computations:

FIFO: (350 units @ $28) = $9,800.

LIFO: (350 units @ $35) = $12,250.

Average: [(400 units @ $28) + (475 units @ $35)] ÷ 875 units =
$27,825 ÷ 875 units = $31.80 per unit.
$31.80 x 350 units = $11,130.

Req. 2

	FIFO	*LIFO*	*Average Cost*
Sales revenue ($50 x 350)	$17,500	$17,500	$17,500
Cost of goods sold	9,800	12,250	11,130
Gross profit	7,700	5,250	6,370
Expenses	1,700	1,700	1,700
Pretax income	$ 6,000	$ 3,550	$ 4,670

Req. 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) LIFO–produces the lowest pretax income, hence the lowest amount of cash to be paid for income tax.

(2) Average cost–produces the next lowest pretax income.

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

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

E7–11.

Req. 1

	Units	FIFO	LIFO	Average Cost
Cost of goods sold:				
Beginning inventory	2,000	$ 76,000	$ 76,000	$ 76,000
Purchases	8,000	320,000	320,000	320,000
Goods available for sale	10,000	396,000	396,000	396,000
Ending inventory*	1,800	72,000	68,400	71,280
Cost of goods sold**	8,200	$324,000	$327,600	$324,720

Income statement	FIFO	LIFO	Average Cost
Sales revenue	$615,000	$615,000	$615,000
Cost of goods sold	324,000	327,600	324,720
Gross profit	291,000	287,400	290,280
Expenses	184,500	184,500	184,500
Pretax income	106,500	102,900	105,780
Income tax expense (30%)	31,950	30,870	31,734
Net income	$ 74,550	$ 72,030	$ 74,046

*Ending inventory computations:

FIFO: 1,800 units @ $40 = $72,000.

LIFO: 1,800 units @ $38 = $68,400.

Average: [(2,000 units @ $38) + (8,000 units @ $40)] ÷ 10,000 units =
$396,000 ÷ 10,000 units = $39.60 per unit.
$39.60 x 1,800 units = $71,280.

**Cost of goods sold computations:

FIFO: (2,000 units @ $38) + (6,200 units @ $40) = $324,000.

LIFO: (8,000 units @ $40) + (200 units @ $38) = $327,600.

Average: [(8,000 units @ $38) + (8,000 units @ $40)] ÷ 10,000 units =
$396,000 ÷ 10,000 units = $39.60 per unit.
8,200 units @ $39.60 = $324,720.

Req. 2

FIFO produces a more favorable (higher) net income because when prices are rising it gives a lower cost of goods sold amount. FIFO allocates the older (lower) unit costs to cost of goods sold.

LIFO produces a more favorable cash flow than FIFO because, when prices are rising, it produces a higher cost of goods sold amount and lower taxable income, and therefore, lower income tax expense for the period. Cash outflow is less under LIFO by the amount of income tax reduction. LIFO causes these comparative effects because it allocates the newer (higher) unit costs to cost of goods sold.

Req. 3

When prices are falling, the opposite effect occurs–LIFO produces higher net income and less favorable cash flow than does FIFO. Thus LIFO is preferable in terms of net income, and FIFO is preferable for income tax purposes.

E7–12.

Item	Quantity	Total Cost				Total Net Realizable Value				Lower of Cost or NRV
A	50	x	$15	=	$ 750	x	$12	=	$600	$ 600
B	80	x	30	=	2,400	x	40	=	3,200	2,400
C	10	x	48	=	480	x	52	=	520	480
D	70	x	25	=	1,750	x	30	=	2,100	1,750
E	350	x	10	=	3,500	x	5	=	1,750	1,750
	Total				$8,880				$8,170	$6,980

Inventory valuation that should be used (lower of cost or NRV) $6,980

E7–15.

FIFO:

Goods available for sale for FIFO:

Units (19 + 25 + 50)	94
Amount ($304 + 325 + 950)	$1,579

Ending inventory: 94 units – 65 units = 29.

Ending inventory (29 units x $19)	$ 551
Cost of goods sold: [(19 units @ $16) + (25 units @ $13) + (21 units @ $19)]	$1,028

$$\text{Inventory turnover} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}} = \frac{\$1,028}{(\$304+\$551)/2} = 2.40$$

LIFO:

Goods available for sale for LIFO:

Units (19 + 25 + 50)	94
Amount ($228 + 325 + 950)	$1,503

Ending inventory: 94 units – 65 units = 29.

Ending inventory (19 units x $12) + (10 units x $13)	$ 358
Cost of goods sold [(50 units @ $19) + (15 units @ $13)]	$1,145

$$\text{Inventory turnover} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}} = \frac{\$1,145}{(\$228+\$358)/2} = 3.91$$

The FIFO inventory turnover ratio is normally thought to be a more accurate indicator when prices are changing because LIFO can include very old inventory prices in ending inventory balances.

E7–18.

Req. 1

When the ending inventory is overstated, cost of goods sold is understated which in turn results in an overstatement of net income. Gibson's income from operations should be reduced by $8,806,000 and tax expense should be reduced by $3,460,758 (i.e., $8,806,000 x 0.393). Therefore, net income should be:

As reported:	$25,852,000
Increase in cost of goods sold	(8,806,000)
Reduction in tax expense	3,460,758
Corrected income	$20,506,758

Req. 2

The incorrect accounts can be summarized as follows:

Account	*(a) Year of Error*	*(b) Subsequent Year*
Beginning inventory	correct	overstated
Cost of goods sold	understated	overstated
Ending inventory	overstated	correct
Income tax expense	overstated	understated
Net income	overstated	understated
Retained earnings	overstated	correct
Taxes payable*	overstated	understated

*The income tax payable for each year is incorrect by the same amount; therefore after the second year the total income tax paid was correct.