Current Assets Exercises IV

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Problem 1

Jill Hansen owns Interior Designs, a furniture store. One of her most popular items is a leather recliner.

Following is the recliner inventory activity for August. The recliners on hand at August 1 had a unit cost of $280.

Date	Purchases	Sales	Units on Hand
01-Aug			80
04-Aug	120 units @ $300 each		200
20-Aug		140 units @ $510 each	60
25-Aug	180 units @ $340 each		240
29-Aug		110 units @ $590 each	130

a) If Interior Designs uses the first-in, first-out (FIFO) inventory method (periodic approach), what values would be assigned to ending inventory and cost of goods sold? How much is gross profit?

b) If Interior Designs uses the last-in, first-out (LIFO) inventory method (periodic approach), what values would be assigned to ending inventory and cost of goods sold? How much is gross profit?

c) If Interior Designs uses the weighted-average inventory method (periodic approach), what values would be assigned to ending inventory and cost of goods sold? How much is gross profit?

Worksheet 1

(a) FIFO

Beginning inventory	$ -
Plus: Purchases	-
Cost of goods available for sale	$ -
Less: Ending inventory	-
Cost of goods sold	$ -
Sales	$ -
Cost of goods sold	-
Gross profit	$ -

(b) LIFO

Beginning inventory	$ -
Plus: Purchases	-
Cost of goods available for sale	$ -
Less: Ending inventory	-
Cost of goods sold	$ -
Sales	$ -
Cost of goods sold	-
Gross profit	$ -

(c) Weighted-average

Beginning inventory	$ -
Plus: Purchases	-
Cost of goods available for sale	$ -
Less: Ending inventory	-
Cost of goods sold	$ -
Sales	$ -
Cost of goods sold	-
Gross profit	$ -

Solution 1

(a) FIFO

Beginning inventory (80 X $280)	$	22,400
Plus: Purchases (120 X $300) + (180 X $340)		97,200
Cost of goods available for sale	$	119,600
Less: Ending inventory (130 X $340)		44,200
*Cost of goods sold	$	75,400

* Also, can be calculated as (80 X $280) + (120 X $300) + (50 X $340)

Sales (140 X $510) + (110 X $590)	$	136,300
Cost of goods sold		75,400
Gross profit	$	60,900

(b) LIFO

Beginning inventory (80 X $280)	$	22,400
Plus: Purchases (120 X $300) + (180 X $340)		97,200
Cost of goods available for sale	$	119,600
Less: Ending inventory (80 X $280) + (50 x $300)		37,400
**Cost of goods sold	$	82,200

** Also, can be calculated as (180 X $340) + (70 X $300)

Sales (140 X $510) + (110 X $590)	$	136,300
Cost of goods sold		82,200
Gross profit	$	54,100

(c) Weighted-average

Beginning inventory (80 X $280)	$	22,400
Plus: Purchases (120 X $300) + (180 X $340)		97,200
Cost of goods available for sale	$	119,600
***Less: Ending inventory (130 X $314.74)		40,916
***Cost of goods sold (250 X $314.74)	$	78,684

*** Weighted-average cost is $314.7368 (((80 X $280) + (120 X $300) + (180 X $340))/380)

Sales (140 X $510) + (110 X $590)	$	136,300
Cost of goods sold		78,684
Gross profit	$	57,616

Problem 2

James Jenkins is conducting an audit of the computerized inventory system used by Clear Windows Corporation. James has inserted hypothetical data into the computer program that tracks inventory on a perpetual basis. Below are the hypotheical data inserted by James:

Transaction	Units	Cost per unit
Beginning inventory	30	$30
Purchase, day 1	15	$33
Sale, day 2	18	
Purchase, day 3	24	$36
Sale, day 4	27	

The computer program returned the following ending inventory values:

FIFO Perpetual, $864
LIFO Perpetual, $720
Moving average, $792

Which of the three values appears to be incorrect, and what "error" might be causing this condition?

Worksheet 2

FIFO PERPETUAL:

Date	Purchases	Cost of Goods Sold	Balance
Day 0			30 X $30 = $900
Day 1	15 X $33 = $495		
Day 2			
Day 3	24 X $36 = $864		
Day 4			
Ending			

LIFO PERPETUAL:

Date	Purchases	Cost of Goods Sold	Balance
Day 0			30 X $30 = $900
Day 1	15 X $33 = $495		
Day 2			
Day 3	24 X $36 = $864		
Day 4			
Ending			

Moving Average:

Date	Purchases	Cost of Goods Sold	Balance
Day 0			30 X $30 = $900
Day 1	15 X $33 = $495		
Day 2			
Day 3	24 X $36 = $864		
Day 4			
Ending			

Solution 2

FIFO PERPETUAL:

Date	Purchases	Cost of Goods Sold	Balance
Day 0			30 X $30 = $900
Day 1			30 X $30 = $900
	15 X $33 = $495		15 X $33 = $495
			$1,395
Day 2		18 X $30 = $540	12 X $30 = $360
			15 X $33 = $495
			$855
Day 3			12 X $30 = $360
			15 X $33 = $495
	24 X $36 = $864		24 X $36 = $864
			$1,719
Day 4		12 X $30 = $360	
		15 X $33 = $495	
		$855	24 X $36 = $864
Ending			24 X $36 = $864

LIFO PERPETUAL:

Date	Purchases	Cost of Goods Sold	Balance
Day 0			30 X $30 = $900
Day 1			30 X $30 = $900
	15 X $33 = $495		15 X $33 = $495
			$1,395
Day 2		15 X $33 = $495	27 X $30 = $810
		3 X $30 = $ 90	
		$585	
Day 3			27 X $30 = $810
			24 X $36 = $864
	24 X $36 = $864		$1,674
Day 4		24 X $36 = $864	24 X $30 = $ 720
		3 X $30 = $ 80	
		$944	
Ending			24 X $30 = $ 720

Moving Average:

Date	Purchases	Cost of Goods Sold	Balance
Day 0			30 X $30 = $900
Day 1			30 X $30 = $900
	15 X $33 = $495		15 X $33 = $495
	Note: Average cost = $1,395/45 units = $31		$1,395
Day 2		18 X $31 = $558	27 X $31 = $837
Day 3			27 X $31 = $837
	24 X $36 = $864		24 X $36 = $864
	Note: Average cost = $1,701/51 units = $33.3529		$1,701
Day 4		27 X $33.3529 = $900.53	24 X $33.3529 = $800.47
Ending			24 X $33.3529 = $800.47

The computer program returned the wrong value for the Moving Average method ($792 instead of the correct $800.47). Perhaps the program simply averaged the unit cost (($30 + $33 + $36)/3) at $33. $33 X 24 units = the wrong amount ($792). It is important to weight the average cost on a moving basis, as shown.

Problem 3

Jonathan Atwood Clock Company had the following transactions relating to the purchase and sale of wall Clocks. There was no beginning inventory.

Purchased 200 units on account at $500 per unit
Sold 125 units for cash at $750 per unit
Customers returned 2 defective units for cash refunds
Atwood returned the 2 defective units to its supplier for credit on account

a) Assuming Atwood uses a periodic inventory system, what journal entries would be needed to record the preceding activity?

b) Assuming Atwood uses a periodic inventory system, show the calculation of gross profit. You may assume that Atwood conducted a physical count of ending inventory and confirmed that 75 were still on hand.

c) Assuming Atwood uses a perpetual inventory system, what journal entries would be needed to record the preceding activity?

d) Assuming Atwood uses a perpetual inventory system, show the calculation of gross profit. If Atwood uses a perpetual system, would there be any need to perform a periodic physical count of clocks on hand?

Worksheet 3

a)

GENERAL JOURNAL			
Date	**Accounts**	**Debit**	**Credit**

b)

c)

GENERAL JOURNAL			
Date	**Accounts**	**Debit**	**Credit**

d)

Solution 3

a)

GENERAL JOURNAL			
Date	**Accounts**	**Debit**	**Credit**
	Purchases	100,000	
	Accounts Payable		100,000
	Purchased inventory on account (200 units X $500)		
	Cash	93,750	
	Sales		93,750
	Sold merchandise for cash (125 units X $750)		
	Sales Returns & Allowances	1,500	
	Cash		1,500
	To record the return by customers of 2 units (2 X $750)		
	Accounts Payable	1,000	
	Purchases Returns & Allowances		1,000
	To record the return to vendors of 2 units (2 X $500)		

b) Beginning inventory ($0) + net purchases ($100,000 - $1,000) - ending inventory (75 units X $500) = cost of goods sold ($61,500); net sales ($93,750 - $1,500) - cost of goods sold ($61,500) = gross profit ($30,750).

c)

GENERAL JOURNAL			
Date	**Accounts**	**Debit**	**Credit**
	Inventory	100,000	
	Accounts Payable		100,000
	Purchased inventory on account (200 units X $500)		
	Cash	93,750	
	Sales		93,750
	Sold merchandise for cash (125 units X $750)		
	Cost of Goods Sold	62,500	
	Inventory		62,500
	To record cost of goods sold (125 units X $500)		
	Sales Returns & Allowances	1,500	
	Cash		1,500
	To record the return by customers of 2 units (2 X $750)		
	Inventory	1,000	
	Cost of Goods Sold		1,000
	To place returned units back in inventory (2 X $500)		
	Accounts Payable	1,000	
	Inventory		1,000
	To record the return to vendors of 2 units (2 X $500)		

d) Net sales ($93,750 - $1,500) - cost of goods sold ($62,500 - $1,000) = gross profit ($30,750). Ending inventory in the ledger would be $37,500 ($100,000 - $62500 + $1,000 - $1,000 = $37,500). This balance should be confirmed via a physical count.

Problem 4

Prime Time Luxury Autos uses the specific identification method to value its inventory. Below is a listing of automobiles that were either in beginning inventory or acquired during the year:

Automobile	Date Acquired	Cost
Bentley	Beginning inventory	$ 240,000
Aston Martin	Beginning inventory	190,000
Audi	Beginning inventory	55,000
Maserati	February	110,000
Rolls Royce	May	97,000
Cadillac	January	55,000
Lotus	March	65,000
Land Rover	June	45,000
Jaguar	July	57,000
Porsche	September	90,000
Mercedes	November	70,000
BMW	December	79,000
Fararri	December	138,000

Prime Time uses the specific identification method. Total sales during the year were $1,139,000. Automobiles in ending inventory were the Mercedes, Porsche, Fararri, Audi, and BMW. Determine the ending inventory, cost of goods sold, and gross profit for Park Place.

Worksheet 4

UNITS SOLD

$

UNITS IN ENDING INVENTORY

$

Sales	
Cost of Goods Sold	
Gross profit	$

Solution 4

UNITS SOLD	
Bentley	$240,000
Aston Martin	190,000
Maserati	55,000
Rolls Royce	110,000
Cadillac	97,000
Lotus	55,000
Land Rover	65,000
Jaguar	45,000
	$ 859,000

UNITS IN ENDING INVENTORY	
Audi	$55,000
Porsche	90,000
Mercedes	70,000
BMW	79,000
Fararri	138,000
	$ 432,000

Sales	$ 1,139,000
Cost of Goods Sold	859,000
Gross profit	$ 280,000

Problem 5

Team Tennis Store has a number of tennis rackets in stock. All units are priced to provide a normal profit margin of $75. Some of these units are quite old. Carson's has concluded that some "lower-of-cost-or-market" adjustments may be needed, and has gathered the following unit pricing data:

Wood Racket, $450 cost, $475 replacement cost, $150 selling price
Aluminum Racket, $400 cost, $125 replacement cost, $250 selling price
Graphite, $200 cost, $160 replacement cost, $200 selling price
Composit Racket, $300 cost, $375 replacement cost, $400 selling price

a) What unit value should be attached to each type of racket, assuming item-by-item application of the lower-of-cost-or-market rule?

b) Assuming an item-by-item application of the lower-of-cost-or-market rule, what journal entry is needed to reduce the Wood Tennis Racket? 7 such units remain in stock.

Worksheet 5

a)

	Wood	Aluminum	Graphite	Composit
Cost				
Vs. "Market":				
Replacement cost				
Net realizable value				
NRV less normal profit margin				
VALUE TO REPORT				

b)

Loss Due to Decline in Market Value of Inventory

Inventory

To record decline in value of Wood Racket inventory

(Note: Some companies will establish an allowance account rather than actually reducing the inventory account.

Solution 5

a)

	Wood	Aluminum	Graphite	Composit
Cost	$450	$400	$200	$300
Vs. "Market":				
Replacement cost	$475	$125	$160	$375
Net realizable value	$150	$250	$200	$400
NRV less normal profit margin	$75	$175	$125	$325
VALUE TO REPORT	$150	$175	$160	$300

b)

Loss Due to Decline in Market Value of Inventory	2,100	
Inventory		2,100

To record decline in value of Wood Racket inventory (($450 - $150) X 7)

(Note: Some companies will establish an allowance account rather than actually reducing the inventory account.

Problem 6

Maverick Equipment Rental was burglarized in February of 20X7. It is unclear how many items were stolen. Maverick and its insurance company are currently working to estimate the dollar value of the stolen goods in order to reach a financial settlement under the existing property insurance policy.

Maverick's tax return prepared at the end of 20X6 revealed that the company ended 20X6 with a total inventory of $567,000. Maverick uses the same inventory accounting methods for tax and accounting purposes.

The insurance company has contacted Maverick's suppliers and confirmed Maverick's claim that purchases for 20X7, prior to the date of the burglary, were $1,128,000. All inventory was purchased, FOB destination.

20X7 Sales taxes collected by Maverick and remitted to the state, prior to the date of the theft, were $132,000. The sales tax rate is 7% of sales.

An inventory was taken immediately after the burglary and the cost of Equipment in stock was $369,000.

Maverick consistently sells equipment at a gross profit margin of 30%.

Use the gross profit method to estimate the dollar value of stolen equipment.

Worksheet 6

Sales*
Cost of goods sold
Gross profit

* Sales = $132,000/.07 =

Beginning inventory
Plus: Purchases
Cost of goods available for sale
Less: Ending inventory before theft
Cost of goods sold

Solution 6

Sales*	100%	$	1,885,714
Cost of goods sold	70%		1,320,000
Gross profit	30%	$	565,714

* Sales = $132,000/.07 = $1,885,714

Beginning inventory	$	567,000
Plus: Purchases		1,128,000
Cost of goods available for sale	$	1,695,000
Less: Ending inventory before theft		375,000
Cost of goods sold	$	1,320,000

Based on the gross profit technique, it appears that equipment on hand before the theft were $375,000. Since $369,000 was actually on hand, a preliminary estimate of the theft loss is only $6,000.

Problem 7

	20X0	20X1
Beginning inventory	$ 2,537,600	$ 2,121,600
Purchases	7,599,960	9,802,000
Cost of goods available for sale	$ 10,137,560	$ 11,923,600
Less: Ending inventory	2,121,600	1,920,000
Cost of goods sold	$ 8,015,960	$ 10,003,600
Sales	$ 12,015,960	$ 18,003,600
Cost of goods sold	8,015,960	10,003,600
Gross profit	$ 4,000,000	$ 8,000,000

The 20X0 ending inventory value used in the above presentation erroneously failed to include $800,000 of goods purchased FOB shipping point. The purchase and related accounts payable were correctly recorded by Juniper Corporation. Juniper Corporation uses a periodic inventory system.

a) Prepare a corrected presentation of the above data.

b) Prepare a corrected presentation of the above data, but this time assume that the company had also failed to record the purchase before 20X1 (in addition to omitting the $800,000 from 20X0 ending inventory).

Worksheet 7

a)

	20X0	20X1
Beginning inventory	$ -	$ -
Purchases	-	-
Cost of goods available for sale	$ -	$ -
Less: Ending inventory	-	-
Cost of goods sold	$ -	$ -
Sales	$ -	$ -
Cost of goods sold	-	-
Gross profit	$ -	$ -

b)

	20X0	20X1
Beginning inventory	$ -	$ -
Purchases	-	-
Cost of goods available for sale	$ -	$ -
Less: Ending inventory	-	-
Cost of goods sold	$ -	$ -
Sales	$ -	$ -
Cost of goods sold	-	-
Gross profit	$ -	$ -

Solution 7

a)

	20X0	20X1
Beginning inventory	$ 2,537,600	$ 2,121,600
Purchases	7,599,960	9,802,000
Cost of goods available for sale	$ 10,137,560	$ 11,923,600
Less: Ending inventory	2,121,600	1,920,000
Cost of goods sold	$ 8,015,960	$ 10,003,600
Sales	$ 12,015,960	$ 18,003,600
Cost of goods sold	8,015,960	10,003,600
Gross profit	$ 4,000,000	$ 8,000,000

b)

	20X0	20X1
Beginning inventory	$ 2,537,600	$ 2,121,600
Purchases	8,399,960	9,002,000
Cost of goods available for sale	$ 10,937,560	$ 11,123,600
Less: Ending inventory	2,121,600	1,920,000
Cost of goods sold	$ 8,815,960	$ 9,203,600
Sales	$ 12,015,960	$ 18,003,600
Cost of goods sold	8,815,960	9,203,600
Gross profit	$ 3,200,000	$ 8,800,000

Problem 8

TopFlight Gliding Corporation is a newly formed entity that engages in the purchase and resale of parasailing equipment. Purchases for the first year of operation were as follows:

Date	Purchases
07-Jan	25 units @ $7,500 each
15-Mar	35 units @ $8,000 each
16-Jun	15 units @ $8,250 each
03-Aug	45 units @ $8,500 each
11-Oct	12 units @ $8,600 each

Sales for this first year of operation amounted to 105 units and totaled $1,365,000.

a) If TopFlight uses the first-in, first-out (FIFO) inventory method (periodic approach), what values would be assigned to ending inventory and cost of goods sold? How much is gross profit?

b) If TopFlight uses the last-in, first-out (LIFO) inventory method (periodic approach), what values would be assigned to ending inventory and cost of goods sold? How much is gross profit?

c) If TopFlight uses the weighted-average inventory method (periodic approach), what values would be assigned to ending inventory and cost of goods sold? How much is gross profit?

d) Which of the above techniques produces the highest profit? Which of the above techniques reports the most "current" cost on a balance sheet? Which of the above techniques report the most "current" cost in measuring income? Which of the above techniques results in the lowest income tax obligation?

Worksheet 8

a) FIFO

Purchases
25 units @ $7,500 each
35 units @ $8,000 each
15 units @ $8,250 each
45 units @ $8,500 each
12 units @ $8,600 each

Beginning inventory	$	-
Plus: Purchases		-
Cost of goods available for sale	$	-
Less: Ending inventory		-
Cost of goods sold	$	-

Sales	$	-
Cost of goods sold		-
Gross profit	$	-

b) LIFO

Beginning inventory	$	-
Plus: Purchases		-
Cost of goods available for sale	$	-
Less: Ending inventory		-
Cost of goods sold	$	-

Sales	$	-
Cost of goods sold		-
Gross profit	$	-

c) Weighted-average

Beginning inventory	$	-
Plus: Purchases		-
Cost of goods available for sale	$	-
Less: Ending inventory		-
Cost of goods sold	$	-

Sales	$ -
Cost of goods sold	-
Gross profit	$ -

d) The highest gross profit is produced under _____.
The most current cost in inventory is reported under _____.
The most current cost on the income statement is reported under _____.
The lowest profit and tax obligation is produced under _____.

Solution 8

a) FIFO

Purchases		
25 units @ $7,500 each	$	187,500
35 units @ $8,000 each		280,000
15 units @ $8,250 each		123,750
45 units @ $8,500 each		382,500
12 units @ $8,600 each		103,200
132 units available	$	1,076,950
105 units sold		
33 units in ending inventory		

Beginning inventory	$	-
Plus: Purchases		1,076,950
Cost of goods available for sale	$	1,076,950
Less: Ending inventory		281,700
(12 X $8,600 + 21 X $8,500)		
Cost of goods sold	$	795,250

Sales	$	1,365,000
Cost of goods sold		795,250
Gross profit	$	569,750

b) LIFO

Beginning inventory	$	-
Plus: Purchases		1,076,950
Cost of goods available for sale	$	1,076,950
Less: Ending inventory		251,500
(25 X $7,500) + (8 x $8,000)		
Cost of goods sold	$	825,450

Sales	$	1,365,000
Cost of goods sold		825,450
Gross profit	$	539,550

c) Weighted-average

Beginning inventory	$	-
Plus: Purchases		1,076,950
Cost of goods available for sale	$	1,076,950
Less: Ending inventory (33 X $8,158.712)		269,237
Cost of goods sold (105 X $8,158.712)	$	807,713

Weighted-average cost is $8,158.712 ($1,076,950/132 units)

Sales	$	1,365,000
Cost of goods sold		807,713
Gross profit	$	557,287

d) The highest gross profit ($569,750) is produced under FIFO.
The most current cost in inventory is reported under FIFO.
The most current cost on the income statement is reported under LIFO.
The lowest profit and tax obligation is produced under LIFO.