# CHAPTER 6

# Accounting for retailing

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  both perpetual and periodic inventory systems
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## **Problem 6.1** Journal entries – periodic inventory system

The following transactions relating to product MX-5023 occurred in March. Prepare journal entries to record the transactions assuming that a periodic inventory system is used. The beginning inventory on 1 March consisted of 970 units at \$4 each.

- March 1 Purchased 1500 units for \$4 each on credit.
  - 7 Returned 30 units, which were defective.
  - 12 Sold 600 units on account for \$8 each.
  - 24 A customer returned 16 units.
  - 25 Sold 625 units on account for \$8 each.
  - A physical inventory count shows 1220 units at a total cost of \$4880.

The business closes its books at the end of each month.

#### Required:

- A. Prepare entries to close the statement of financial performance accounts for March, based on the data just given, and assuming that operating expenses for March were \$2900
- B. If a perpetual inventory system had been maintained, how much would the business have recorded as inventory lost or stolen?

#### **Solution**

#### General Journal

		UCIICIAI JUUITIA	aı	
March	1	Purchases Accounts Payable Purchased units on credit.	6000	6000
		r urchased units on credit.		
	7	Accounts Payable Purchases Returns & Allowances Returned defective units.	1200	1200
	12	Accounts Receivable Sales Sold 600 units at \$8.	4800	4800
	24	Sales Returns & Allowances Accounts Receivable Customer returns 16 units at \$8.	128	128
	25	Accounts Receivable Sales Sold 625 units at \$8.	5000	5000

31 No journal entry required for stocktake balance of inventory.



Α

# General Journal Closing entries

March 31	Profit and Loss Summary	12 908	
	Inventory (1 March)		3 880
	Purchases		6 000
	Sales Returns and Allowances		128
	Operating Expenses		2 900
	To close debit a/cs to Profit and Loss	Summary.	
	Inventory 31 March	4 880	
	Purchases Returns and Allowances	1 200	
	Sales	9 800	
	Profit and Loss Summary		15880
	To close credit to Profit and Loss Sum	ımary.	
	Profit and Loss Summary	2 972	
	Capital		2972
	To transfer net profit to Capital a/c.		

B.

If a perpetual inventory system was in place the inventory shortage would be 11 units @ \$4 or \$44.

970 units @ \$4 + 1500 units @ \$4 - 30 units @ \$4 - 600 units @ \$4 + 16 units @ \$4 - 625 units @ \$4 = 1231 units @ \$4

Physical count 1220 units @ \$4 = \$4 880

Under the perpetual inventory system a record of the number of inventory units at any time is maintained. Therefore, if a physical count is conducted this can be compared to the recorded number of units on hand.

If there is a discrepancy between the recorded units on hand and the counted units on hand, this is called inventory shortage and is recorded as part of cost of goods sold.



### Problem 6.2

Journal entries involving discounts, closing entries and statements of financial performance — both perpetual and periodic inventory systems

Vision Lighting buys lamps for \$40 each and sells them for \$60 each. The business uses the gross price method to record purchases and sales. On 1 April 2003, 24 lamps were in inventory. Vision Lighting completed the following transactions during April.

- April 3 Purchased 40 lamps on account. Terms: 2/10, n/30, FOB shipping point.
  - 4 Paid freight cost of \$60 on 3 April purchase.
  - 5 Sold 22 lamps on account. Terms: 3/10, n/30, FOB destination. Paid freight cost of \$27.
  - 9 Returned 10 of the lamps purchased on 3 April and paid the amount due on the lamps retained in stock.
  - A customer returned 3 of the lamps sold on 5 April. The lamps were not defective and were returned to stock.
  - Purchased 20 lamps on credit. Terms: 2/10, n/30, FOB shipping point.
  - Received payment from customer for the amount due on 5 April sale.
  - 19 Sold 39 lamps for cash at \$60 each.
  - Four of the lamps sold on 19 April were returned by the customer for a cash refund. The lamps were not defective.
  - Paid the supplier the amount owed for the 13 April purchase.

A physical inventory taken on 30 April 2003 showed 20 lamps in stock.

#### Required.

- A. In two columns, prepare general journal entries to record the transactions assuming:
  - 1. a perpetual inventory system is used
  - 2. a periodic inventory system is used.
- B. Assuming Vision Lighting closes its books at month-end, prepare entries to close the accounts.
- C. Prepare two separate statements of financial performance showing gross and net profit for April, assuming that:
  - 1. the perpetual inventory system was used
  - 2. the periodic inventory system was used.



# Solution

Α

#### VISION LIGHTING

	1. Perpectual			2. Period	ic	
April	3 Inventory Accounts Payable	1 600	1 600	Purchases Accounts Payable	1 600	1 600
	4 Freight Inwards Cash at Bank	60	60	Freight Inwards Cash at Bank	60	60
	5 Accounts Receivable Sales	1 320	1 320	Accounts Receivable Sales	1 320	1 320
	Cost of Goods Sold Inventory	880	880			
	Freight Outwards	27		Freight Outwards (selling exp)	27	
	Cash at Bank		27	Cash at Bank		27
	9 Accounts Payable Inventory	400	400	Accounts Payable Purchases Retns. and Allowances	400	400
	Accounts Payable $(30 \times \$40)$	1 200		Accounts Payable	1 200	
	Discount Received Cash at Bank		24 1 176	Discount Received Cash at Bank		24 1 176
	10 Sales Returns and Allowances Accounts Receivable	180	180	Sales Returns and Allowances Accounts Receivable	180	180
	Inventory Cost of Goods sold	120	120			
	13 Inventory Accounts Payable	800	800	Purchases Accounts Payable	800	800
	Cash at Bank Discount Allowed Accounts Receivable (19 lamps × \$60)	1105.80 34.20	1 140	Cash at Bank Discount Allowed Accounts Receivable	1105.80 34.20	1 140
	19 Cash at Bank Sales	2 340	2 340	Cash at Bank Sales	2 340	2 340
	Cost of Goods Sold Inventory	1560	1 560			
	20 Sales Returns and Allowances Cash at Bank	240	240	Sales Returns and Allowances Cash at Bank	240	240
	Inventory Cost of Goods Sold	160	160			
	22 Accounts Payable Discount Received Cash at bank	800	16 784	Accounts Payable Discount Received Cash at bank	800	16 784



В			
April 30 Profit and Loss Summary	2701.20	Profit and Loss Summary	3901.20
Sales Ret and Allow.	420	Inventory	960
Cost of Goods Sold	2 160	Sales Ret. and Allow.	420
Freight Inwards	60	Purchases	2 400
Freight Out	27	Freight Inwards	60
Discount Allowed	34.20	Freight Out	27
		Discount Allowed	34.20
Sales	3 660	Sales	3 660
Discount Received	40	Purchases Ret. & Allow.	400
Profit and Loss	3 700	Inventory	800
Summary			
		Discount Received Profit and Loss Summary	40 4 900
Profit and Loss Summary	998.80	Profit and Loss Summary	998.80
Capital	998.80	Capital	998.80
C. 1. Perpetual			
_	VISION LIGHTI		
	ent of Financial		
OPERATING REVENUE	month ended 30	J April 2003	
Gross sales revenue	e	\$3 660	
<u>Less</u> : sales returns	and allowances	420	
Net sales revenue		3 240	
<u>Less</u> : Cost of goods	s sold (2160 + 60	<u>2 220</u>	
Gross profit		\$1020	
OPERATING EXPE			
Freight out Discount allowed	27.00	61.20	
Discount anowed	<u>34.20</u>	<u>61.20</u> 958.80	
Add: Discount rece	ived	40.00	
NET PROFIT		<del></del>	08.80
2. Periodic			
2. Periodic	VISION LIGHTI	NG	
	ent of Financial		
OPERATING REVENUE	month ended 30	O April 2003	
Gross sales revenue		\$3	3 660
Less: Sales returns and allowance	es	Ψ	<u>420</u>
Net sales revenue		3	3 240
Cost of goods sold:			
Beginning inventor		\$960	
Add: Cost of purch		\$2 400	
Freight inward	ds	<u>60</u>	
Less: Purchases ret	urns	2 460	
and allowance		<u>400</u>	
Cost of net purcha		<u>2 060</u>	
Cost of goods avai		3 020	
Less: Cost of ending	g inventory	<u>800</u>	
Cost of goods sold			2 220
GROSS PROFIT	MCEC	\$1	020
OPERATING EXPE			
Freight out Discount allowed	27.00 34.20	c.	51.20
Discount anowed	<u>57.40</u>	_	51.20 58.80
Add: Discount rece	ived		<u>0.00</u>
NET PROFIT		_	18 80

NET PROFIT



\$998.80

#### Problem 6.3

# Worksheet and completion of accounting cycle – periodic inventory system

The unadjusted trial balance of Coronet Office Furniture is shown below.

CORONET OFFICE FURNITURE Unadjusted Trial Balance as at 30 June 2003					
Account title	Debit	Credit			
Cash at bank Accounts receivable Inventory Prepaid insurance Office equipment Accumulated depreciation—office equipment Delivery van Accumulated depreciation—delivery van Accounts payable Loan payable, due December 2004 G. Simpson, Capital G. Simpson, Drawings Sales Sales returns and allowances Purchases Purchases Purchases returns and allowances Discount received Freight inwards Freight outwards Salaries expense—sales Sales commissions expense Rent expense—store Salaries expense—administrative Discount allowed Interest expense	\$ 35 205 46 815 88 950 5 100 83 190 24 750 57 000 10 950 306 450 6 525 3 000 54 000 16 500 69 750 29 250 1 725 2 550	\$ 18 900 6 420 44 100 27 000 150 000 584 220 9 600 1 470			
	\$841 710	\$ 841 710			

#### Required:

- A. Prepare a worksheet for Coronet Office Furniture. Use the following information to make year-end adjustments.
  - 1. \$3600 of the prepaid insurance has expired during the year.
  - 2. Depreciation on the office equipment was \$5940 for the year.
  - 3. Depreciation on the delivery truck was \$3015 for the year.
  - 4. Accrued interest on the loan payable is \$803.

Use the following additional accounts for making adjustments: Interest Payable, Depreciation Expense—Office Equipment, Depreciation Expense—Van, and Insurance Expense. The ending inventory determined by a physical count was \$71 085.

- B. Prepare a statement of financial performance, a statement of owner's equity, and a classified statement of financial position for the year ended 30 June 2003. Expired insurance is reported as an administrative expense.
- C. Prepare adjusting and closing entries.



# Solution

A.

CORONET OFFICE FURNITURE Worksheet for the year ended 30 June 2003

	Unadjusted trial balance	rial balance	Adjustments	ents	Adjusted trial balance	l balance	Statement of Financial Performance	f Financial nance	Statement of Financial Position	nancial Position
Account title	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit
Cash at Bank	35205				35 205				35 205	
Accounts Receivable	46815				46 815				46 815	
Inventory (1/7)	88 9 50				88 950		88 950	71 085	71 085	
Prepaid Insurance	5 100			(1) 3 600	1 500				1 500	
Office Equipment	83 190				83 190				83 190	
Acc. Depr. Office Equip.		18 900		(2) 5 940		24 840				24 840
Delivery Truck	24750				24 750				24 750	
Acc. Depr Del. Van		6 4 2 0		(2) 3 0 1 5		9 435				9 435
Accounts Payable		44 100				44 100				44 100
Loan Payable		27 000				27 000				27 000
G. Simpson, Capital		150000				150 000				150 000
G. Simpson, Drawings	27 000				27 000				57 000	
Sales		584 220				584 220		584 220		
Sales Returns & Allow	10950				10 950		10 950			
Purchases	306450				306 450		306 450			
Purchases Ret. & Allow		0096				009 6		009 6		
Discount Received		1 470				1 470		1 470		
Freight Inwards	6525				6 5 2 5		6 5 2 5			
Freight Outwards	3000				3 000		3 000			
Salaries Expense – sales	54000				54 000		54 000			
Sales Commissions Expense	16500				16 500		16 500			
Rent Expense – store	69 7 50				69 750		69 750			
Salaries Expense – admin	29 2 50				29 250		29 250			
Discount Allowed	1725				1 725		1 725			
Interest Expense	2550		(4) 803		3 353		3 3 5 3			
	841 710	841810								
Insurance Expense			(1) 3 600		3 600		3 600			
Depr. Exp. – Office Equip.			(2) 5 940		5 940		5 940			
Depl.Exp – Del. Vari Interest Payable			CIO C (Z)	(3) 803	cinc	803	610.6			803
			13358	13 358	851 468	851 468				
		ı					800 809	666 375	319 545	256 178
Net profit							63 367		L C	63 367
							922	666 375	319 545	319 545



B.

#### CORONET OFFICE FURNITURE Statement of Financial Performance for the year ended 30 June 2003

OPERATING REVENUE

\$584 220 Gross sales revenue Less: Sales returns and allowances 10950 Net sales revenue 573 270

Cost of goods sold:

Beginning inventory \$88 950

Purchases \$306 450 Freight inwards 6 5 2 5 312975

Less: Purchases returns & allowances 9 600

Net cost of purchases 303 375 Cost of goods available for sale 392 325 Less: ending Inventory 71 085

Cost of goods sold 321 240 **GROSS PROFIT** 252 030 Other operating revenue: Discount received 1 470 253 500

#### **OPERATING EXPENSES**

Selling expenses:

Sales salaries expense 54000 Sales commissions expense 16 500 Rent expense - store 69 750 Freight outwards 3 000 Depr. exp. - store equipment 5940

Depr. exp. - delivery van 3015 152 205

Administrative expenses:

Office salaries expense 29 250

Insurance expense 32850 3 600

Financial expenses:

Interest expense 3 3 5 3

Discount allowed 1725 5 0 7 8 190 133

NET PROFIT AFTER TAX

#### CORONET OFFICE FURNITURE Statement of Owner's Equity for the year ended 30 June 2003

G.Simpson, Capital - 1 July 2002 \$150 000 Net profit for the year 63 367 213 367 Less G.Simpson, Drawings 57000 Retained profits - 30 June 2003 \$156367

(continued)

\$63367



#### CORONET OFFICE FURNITURE Statement of Financial Position as at 30 June 2003

CURRI	ENT ASSETS:		
	Cash at bank	\$35 205	
	Accounts receivable	46 815	
	Inventory	71 085	
	Prepaid insurance	1 500	\$154 605
NON-0	CURRENT ASSETS:		
	Office equipment	83 190	
	Less: Accumulated depreciation	(24840)	58 350
	Delivery van	24750	
	Less: Accumulated depreciation	(9 435)	_15315
TOTAI	ASSETS	<del></del>	228 270
CURRI	ENT LIABILITIES:		
	Accounts payable	44 100	
	Interest payable	803	44 903
NON-0	CURRENT LIABILITIES:		
	Loan Payable		_27 000
TOTAI	L LIABILITIES		71 903
	ASSETS		\$156367
	R'S EQUITY		<del></del>
	G.Simpson, Capital	156 367	
	The state of the s		156 367
TOTAI	L OWNER'S EQUITY		\$156367
10111	S SVIII S EQUIT		Ψ13030.
C.			
	General Journal		
	Adjusting entries		
1.	Insurance Expense	3 600	
	Prepaid Insurance		3 600
	To adjust for expired insurance.		
	r		
2.	Depr. Expense - Office Equipment	5 940	
	Accum. Depr Office Equip.		5 940
	To depreciate store equipment.		
3.	Depr. Expense - Delivery Van	3 015	
	Accum. Depr Delivery Van		3 0 1 5
	To depreciate delivery van.		3 013
4.	Interest Expense	803	
	Interest Payable	303	803
			003
	To record accrued interest on bill.		



Closing entries		
Profit and Loss Summary	603 008	
Inventory 1 April		88 950
Sales Returns and Allowances		10 950
Purchases		306 450
Freight Inwards		6 525
Freight Outwards		3 000
Sales Salaries Expense		54 000
Sales Commissions Expense		16 500
Salaries expense – Admin		29 250
Rent expense – store		69 750
Insurance Expense		3 600
Depr. Expense - Office Equipment		5 940
Depr. Expense - Delivery Van		3 015
Interest Expense		3 353
Discount Allowed		1725
To close debit accounts.		
Inventory 30 April	71 085	
Sales	584 220	
Purchases Returns and Allowances	9 600	
Discount Received	1 470	
Profit & Loss Summary	1 170	666 375
To close credit accounts.		000373
Profit and Loss Summary	63 367	
G. Simpson, Capital		63 367
To close net profit to capital a/c.		
G. Simpson, Capital	57 000	
G. Simpson, Drawings		57 000
To close drawings to capital a/c.		2. 220



## Problem 6.4

# Worksheet and completion of accounting cycle – perpetual inventory system

The unadjusted trial balance of Hayden's Sporting Goods is shown below:

HAYDEN'S SPORTING GOODS Unadjusted Trial Balance as at 30 June 2003					
Account title	Debit	Credit			
Cash at bank	\$ 21 900				
Accounts receivable	26 230				
Inventory	47 930				
Prepaid insurance	2 400				
Store equipment	29 060				
Accumulated depreciation—store equipment		\$ 11 560			
Delivery van	19 800				
Accumulated depreciation—delivery van		4 100			
Accounts payable		12 780			
Bill payable		15 000			
Simon Hayden, Capital		78 620			
Simon Hayden, Drawings	21 780				
Sales		357 960			
Sales returns and allowances	14 610				
Discount received		1 070			
Cost of goods sold	198 010				
Freight inwards	4 120				
Discount allowed	1 800				
Interest expense	2 130				
Freight outwards	2 000				
Sales salaries expense	43 100				
Office salaries expense	46 220				
	\$481 090	\$ 481 090			

#### Required:

- A. Prepare a worksheet for Hayden's Sporting Goods. Use the following information to make the year-end adjustments.
  - 1. Prepaid insurance expired during the year, \$1700.
  - 2. Depreciation on the store equipment, \$4100; and on delivery van, \$3300.
  - 3. Accrued interest on the bill payable, \$980.
- B. Prepare a statement of financial performance, a statement of owner's equity and a statement of financial position for the year ended 30 June 2003.
- C. Prepare adjusting and closing entries.
- D. Prepare a post-closing trial balance.



# Solution

A.

HAYDEN'S SPORTING GOODS Worksheet for the year ended 30 June 2003

ted trial balance Adjustments Adjusted trial b	Adjustments	djustments		Adjusted trial balance	ial balance		Statement of financial performance	f financial ance	Statement of financial position	of financial ion
Credit Debit Credit De	Debit Credit Debit	Credit Debit	Debit		Credit		Debit	Credit	Debit	
	21900	21900	21900	21900					21 900	
26230	26.230	26230	26230	26 230					26230	
				47 930					47 930	
(1) 1 700				200					200	
29060	29060	29 060	29 060						29 060	
11 560 (2) 4100		(2) 4100	(2) 4100			15 660				15 660
				19800					19 800	
4 100		(2) 3 300	(2) 3 300			7 400				7 400
12.780	12 780					12 780				12 780
15 000	15 000					15 000				15 00
78 620	78 620					78 620				78 620
21780 21780	21780	21780	21 780	21 780					21 780	
357 960	357 960					357 960		357 960		
14610	14610	14610	14610	14610			14610			
1070	1 0 7 0					1 070		1 070		
198010	198010	198010	198010	198010			198010			
	4120	4120	4 1 2 0	4 1 2 0			4 1 2 0			
			1800	1 800			1 800			
086(E)			3110	3 110			3 110			
	2 000	2000	2 000	2 000			2 000			
43 100 43 100	43 100	43 100	43 100	43 100			43 100			
46220	46 220	46220	46220	46220			46 220			
			4 100	4 100			4 100			
(2) 3 3 0 0 3 3 0 0			3300	3 300			3300			
				1 700			1 700			
(3) 980	(3) 980	(3) 980				086				980
10 080 10 080 489 470	10 080	10 080		489 470		489 470	322070	329 030		130440
							36960			36 960
							359030	350030	167 400	167 400
						Ц	いたいたんと	ן טכט פכינ	10/ 400	101



B.

#### HAYDEN'S SPORTING GOODS Statement of Financial Performance for the year ended 30 June 2003

for the	e year ended 3	30 June 2003		
OPERATING REVENUE				
Gross sales revenue				\$357 960
Less: Sales returns and allowance	es .			14 610
Net sales revenue				343 350
Cost of goods sold $(198010 + 41)$	20)			<u>202 130</u>
GROSS PROFIT				141 220
Other operating revenue: Discoun	it received			1 070
				142 290
OPERATING EXPENSES				
Selling expenses:				
Freight outwards		\$2 000		
Sales salaries exper		43 100		
Depr. exp store e		4 100	<b>^</b>	
Depr. exp. – deliver	y van	3 300	\$52 500	
Administrative expenses:				
Office salaries expe	nse	46 220		
Insurance expense		<u>1 700</u>	47 920	
Financial expenses:		2.440		
Interest expense		3 110		
Discount allowed		1 800		
NT ( C)			<u>4 910</u>	105 330
Net profit				<u>\$36 960</u>
1127	DELUC CROPE	NO 000DC		
	DEN'S SPORTI			
	ement of Own			
	e year ended 3	30 June 2003		Ф70.600
S. Hayden, Capital – 1 July 2002				\$78 620
Net profit				<u>36 960</u>
Lance C. Handan Dunning				115 580
Less: S. Hayden, Drawings	12			21 780
S. Hayden, Capital – 30 June 200	13			<u>\$93 800</u>
ЦЛV	DEN'S SPORTI	NG GOODS		
	ment of Finan			
State	as at 30 June			
CURRENT ASSETS:	as at 50 June	. 2003		
Cash at Bank		\$21 900		
Accounts receivable	2	26 230		
Inventory	-	47 930		
Prepaid insurance		700		\$96 760
NON-CURRENT ASSETS:		700		Ψ30700
Store equipment		29 060		
Less: Accumulated	depreciation	15 660	13 400	
Delivery van	acpreciación	19 800	13 100	
Less: Accumulated	depreciation	7 400	12 400	
			25 800	
TOTAL ASSETS:				122 560
CURRENT LIABILITIES:				
Accounts payable		12 780		
Interest payable		980		
TOTAL CURRENT LIABILITIES			13 760	
NON-CURRENT LIABILITIES:				
Bill payable		15 000		
TOTAL NON-CURRENT LIABILITI	ES		15 000	
TOTAL LIABILITIES				28 760
NET ASSETS				\$93 800
OWNER'S EQUITY:				<del></del>
S. Hayden, Capital				93 800
TOTAL OWNER'S EQUITY				\$93 800



C.			
	General Journal		
1	Adjusting entries	1 700	
1.	Insurance Expense Prepaid Insurance	1 700	1 700
	To record insurance expired.		1 700
	To record insurance expired.		
2.	Depreciation Expense - Store Equipment	4 100	
	Accumulated Depreciation - Store Equipment		4 100
	To adjust for depreciation on store equip.		
	Depreciation Expense – Del. Van	3 300	
	Accumulated Depreciation - Del. Van		3 300
	To adjust for depreciation on store equip.		
3.	Interest Expense	980	
٥.	Interest Payable	300	980
	To record accrued interest on bill payable.		300
	r		
	<b>General Journal</b> Closing entries		
1.	Profit and Loss Summary		322 070
	Sales Returns and Allowances		4 120
	Cost of Goods Sold		198 010
	Freight Inwards		4 120
	Freight Outwards		2 000
	Sales Salaries Expense		43 100
	Office Salaries Expense		46 220
	Interest Expense		2 130
	Insurance Expense		1700
	Depreciation Expense - Store Equipment		4 100
	Depreciation Expense - Del. Van		3 300
	Discount Allowed		1800
	To close debit accounts.		1000
2.		357 960	
	Discount Received	1 070	
	Profit and Loss Summary		359 030
	To close credit accounts.		
3.	Profit and Loss Summary	36960	
	S. Hayden, Capital		36 960
	To transfer net profit.		
4.	S. Hayden, Capital	21 780	
	S. Hayden, Drawings		21 780
	To transfer drawings to capital a/c.		



D.

#### HAYDEN'S SPORTING GOODS Post Closing Trial Balance as at 30 June 2003

	Debit	Credit
Cash at bank	\$21 900	
Accounts receivable	26 230	
Inventory	47 930	
Prepaid insurance	700	
Store equipment	29 060	
Accum. depr store equipment		\$15 660
Delivery van	19 800	
Accum depr delivery van		7 400
Accounts payable		12 780
Interest payable		980
Bill payable		15 000
Simon Hayden, Capital		<u>93 800</u>
	<u>\$145 620</u>	<u>\$145 620</u>



## **Problem 6.5** Profitability analysis

The following data have been extracted from the profit and loss statement of Trendy Electronics Store Ltd, retailers of Homeburg:

	2003	2002
Net sales	\$392 000	\$357 000
Cost of goods sold	266 560	225 500
Net profit	78 400	89 600
Inventory	60 000	50 000

#### Required:

- A. Calculate the gross profit ratio, profit margin, and operating expenses to sales for the years 2002 and 2003.
- B. Assuming that the merchandise inventory at the beginning of 2002 is \$44,000, calculate the inventory turnover for 2002 and 2003.
- C. Advise management on any trends in these ratios, and any actions you consider necessary.

#### **Solution**

#### A. & B.

	2003	2002
Gross profit	\$125 440	\$131 500
Gross profit ratio	32%	37%
Profit Margin	20%	25%
Operating expenses	\$47 040	\$41 900
Operating exp. to net sales	12%	11.7%
Inventory turnover	4.8 times	4.8 times

#### C

There was a decline in the gross profit margin from 37% to 32%. Even though total net sales increased in absolute dollars the corresponding gross profit on those net sales decreased. This was due to the reported increase in cost of goods sold. So even though there was an increase in total net sales this increase resulted in an increased cost in selling those items.

The profit margin also decreased from 25% to 20%. This was caused through lower gross profit figures and an increase in operating expenses from \$41 900 to \$47 040. Again the increased sales activity resulted in higher operating costs.

Operating expenses to sales percentage and inventory turnover ratios remained the same. Therefore operating expenses did not increase at too large a rate compared with net sales and the times inventory purchased and sold were the same for both accounting cycles.

Recommendations are to negotiate better prices for inventory bought for resale. Even though sales increased in absolute dollars, we were not able to achieve the same gross profit margin. There is a necessity to reduce cost of goods sold expense. This would be achieved by negotiating lower prices for larger inventory purchases.

