CHAPTER 13
STATEMENT OF CASH FLOWS

DISCUSSION QUESTIONS

1. It is costly to accumulate the data needed and to prepare the statement of cash flows.

2. It focuses on the differences between net income and cash flows from operating activities, and the data needed are generally more readily available and less costly to obtain than is the case for the direct method.

3. In a separate schedule of noncash investing and financing activities accompanying the statement of cash flows.

4. The $30,000 increase must be added to income from operations because the amount of cash paid to merchandise creditors was $30,000 less than the amount of purchases included in the cost of goods sold.

5. The $25,000 decrease in salaries payable should be deducted from income to determine the amount of cash flows from operating activities. The effect of the decrease in the amount of salaries owed was to pay $25,000 more cash during the year than had been recorded as an expense.

6. **A.** $100,000 gain

B. Cash inflow of $600,000

C. The gain of $100,000 would be deducted from net income in determining net cash flow from operating activities; $600,000 would be reported as cash flows from investing activities.

7. Cash flows from financing activities—issuance of bonds, $1,960,000 ($2,000,000 × 98%)

8. **A.** Cash flows from investing activities—Cash received from the disposal of fixed assets, $15,000

The $15,000 gain on asset disposal should be deducted from net income in determining net cash flow from operating activities under the indirect method.

B. No effect

9. The same. The total amount reported as the net cash flow from operating activities is not affected by the use of the direct or indirect method.

10. Cash received from customers, cash payments for merchandise, cash payments for operating expenses, cash payments for interest, cash payments for income taxes.

BASIC EXERCISES

BE 13–1

A. Investing
B. Investing
C. Operating
D. Operating
E. Operating
F. Financing

BE 13–2

Net income	**$224,500**
Adjustments to reconcile net income to net cash flow from operating activities:	
Depreciation	**11,575**
Amortization of patents	**2,500**
Gain from sale of investments	**(33,190)**
Net cash flow from operating activities	**$205,385**

BE 13–3

Net income	**$75,800**
Changes in current operating assets and liabilities:	
Increase in accounts receivable	**(5,000)**
Increase in inventory	**(7,450)**
Increase in accounts payable	**3,380**
Net cash flow from operating activities	**$66,730**

Note: **The change in dividends payable impacts the cash paid for dividends, which is disclosed under financing activities.**

BE 13–4

Cash flows from operating activities:		
Net income	**$396,200**	
Adjustments to reconcile net income to net cash flow from operating activities:		
Depreciation	**61,250**	
Loss on disposal of equipment	**27,600**	
Changes in current operating assets and liabilities:		
Increase in accounts receivable	**(9,000)**	
Increase in accounts payable	**3,350**	
Net cash flow from operating activities		**$479,400**

BE 13–5

The gain on the sale of land is subtracted from net income in the Operating Activities section.

Gain on sale of land	**$ (40,000)**

The purchase and sale of land is reported as part of cash flows from investing activities as shown below.

Cash received from sale of land	**240,000**
Cash paid for purchase of land	**(400,000)**

BE 13–6

Cash flows from financing activities:		
Cash received from issuing common stock	**$800,000**	
Cash received from issuing bonds	**700,000**	
Cash paid for dividends	**(90,000)**	
Net cash from financing activities		**$1,410,000**

Appendix 2 BE 13–7

Sales	**$112,000**
Decrease in accounts receivable	**10,500**
Cash received from customers	**$122,500**

Appendix 2 BE 13–8

Cost of goods sold	**$240,000**
Increase in inventories	**19,200**
Increase in accounts payable	**(12,000)**
Cash paid for merchandise	**$247,200**

EXERCISES

Ex. 13–1

There were net additions to the net loss reported on the income statement to convert the net loss from the accrual basis to the cash basis. For example, depreciation is an expense in determining net income, but it does not result in a cash outflow. Thus, depreciation is added back to the net loss in order to determine net cash flow from operations. A second large item that is added to the net loss is the increase in advanced ticket sales of $246 million. This represents an increase in unused, but paid, tickets (unearned revenue) between the two balance sheet dates. This is a significant item that is largely unique to the airline industry.

The cash flows from operating activities detail is provided as follows for class discussion:

United Continental Holdings, Inc. Cash Flows from Operating Activities (Selected from Statement of Cash Flows) (in millions)	
Cash flows from operating activities:	
Net income (loss)	$ (723)
Adjustments to reconcile net income (loss) to net cash flow	
provided by operating activities:	
Depreciation and amortization	1,522
Special charges	389
Debt and lease discount amortization	(247)
Share based compensation	14
Other, net	251
Changes in certain assets and liabilities:	
Decrease (increase) in accounts receivable	(21)
Decrease (increase) in other assets	(484)
Increase (decrease) in accounts payable	285
Increase (decrease) in advanced ticket sales	246
Increase (decrease) in frequent flyer deferred revenue	(712)
Increase (decrease) in other liabilities	415
Net cash flows from (used for) operating activities	$ 935

Ex. 13–2

A. Cash payment, $411,000
B. Cash receipt, $440,000
C. Cash receipt, $60,000
D. Cash payment, $650,000
E. Cash payment, $50,000
F. Cash receipt, $490,000
G. Cash payment, $332,500
H. Cash payment, $1,320,000

Ex. 13–3

A. operating
B. financing
C. financing
D. financing
E. financing
F. investing
G. financing
H. investing
I. financing
J. investing
K. investing

Ex. 13–4

A. added
B. deducted
C. added
D. added
E. added
F. added
G. added
H. added
I. added
J. added
K. deducted

Ex. 13–5

A. Net income	**$73,600**	
Adjustments to reconcile net income to net cash flow from operating activities:		
Depreciation	**27,400**	
Changes in current operating assets and liabilities:		
Increase in accounts receivable	**(8,000)**	
Decrease in inventories	**4,500**	
Decrease in prepaid expenses	**2,250**	
Increase in accounts payable	**5,000**	
Decrease in wages payable	**(900)**	
Net cash flow from operating activities		**$103,850**

B. Cash flows from operating activities shows the cash inflow or outflow from a company's day-to-day operations. Net income reports the excess of revenues over expenses for a company using the accrual basis of accounting. Revenues are recorded when they are earned, not necessarily when cash is received. Expenses are recorded when they are incurred and matched against revenue, not necessarily when cash is paid. As a result, the cash flows from operating activities differs from net income because it does not use the accrual basis of accounting.

Ex. 13–6

A. Cash flows from operating activities:

Net income	**$185,000**	
Adjustments to reconcile net income to net cash flow from operating activities:		
Depreciation	**96,000**	
Changes in current operating assets and liabilities:		
Decrease in accounts receivable	**5,450**	
Increase in inventories	**(11,200)**	
Decrease in prepaid expenses	**900**	
Decrease in accounts payable	**(18,500)**	
Increase in salaries payable	**3,200**	
Net cash flow from operating activities		**$260,850**

B. Yes. The amount of cash flows from operating activities reported on the statement of cash flows is not affected by the method of reporting such flows.

Ex. 13–7

A. Cash flows from operating activities:

Net income	**$508,000**	
Adjustments to reconcile net income to net cash flow from operating activities:		
Depreciation	**57,600**	
Gain on disposal of equipment	**(33,600)**	
Changes in current operating assets and liabilities:		
Increase in accounts receivable	**(8,960)**	
Decrease in inventory	**5,120**	
Decrease in prepaid insurance	**1,920**	
Decrease in accounts payable	**(6,080)**	
Increase in income taxes payable	**1,410**	
Net cash flow from operating activities		**$525,410**

Note: **The change in dividends payable would be used to adjust the dividends declared in obtaining the cash paid for dividends in the Financing Activities section of the statement of cash flows.**

B. Cash flows from operating activities reports the cash inflow or outflow from a company's day-to-day operations. Net income reports the excess of revenues over expenses for a company using the accrual basis of accounting. Revenues are recorded when they are earned, not necessarily when cash is received. Expenses are recorded when they are incurred and matched against revenue, not necessarily when cash is paid. As a result, the cash flows from operating activities differs from net income because it does not use the accrual basis of accounting.

Ex. 13–8

Cash flows from investing activities:

Cash received from sale of equipment	**$101,250**

The loss on the sale, $16,875 ($101,250 proceeds from sale less $118,125 book value), would be added to net income in determining the cash flows from operating activities if the indirect method of reporting cash flows from operations is used.

Ex. 13–9

Cash flows from investing activities:

Cash received from sale of equipment	**$37,200**

The loss on the sale, $6,800 ($37,200 proceeds from sale less $44,000 book value), would be added to net income in determining the cash flows from operating activities if the indirect method of reporting cash flows from operations is used.

Ex. 13–10

Cash flows from investing activities:

Cash received from sale of land	**$ 95,550**
Cash paid for purchase of land	**(104,300)**

The gain on the sale of land, $31,710, would be deducted from net income in determining the cash flows from operating activities if the indirect method of reporting cash flows from operations is used.

Ex. 13–11

Dividends declared	**$1,200,000**
Decrease in dividends payable	**150,000**
Dividends paid to stockholders during the year	**$1,350,000**

Ex. 13–12

Cash flows from financing activities:

Cash received from sale of common stock	**$1,920,000**
Cash paid for dividends	**(315,000)**

Note: **The stock dividend is not disclosed on the statement of cash flows.**

Ex. 13–13

Cash flows from investing activities:

Cash paid for purchase of land	**$(246,000)**

A separate schedule of noncash investing and financing activities would report the purchase of $324,000 land with a long-term mortgage note, as follows:

Purchase of land by issuing long-term mortgage note	**$324,000**

Ex. 13–14

Cash flows from financing activities:

Cash received from issuing bonds payable	**$ 420,000**
Cash paid to redeem bonds payable	**(138,000)**

Note: **The discount amortization of $2,625 would be shown as an adjusting item (increase) in the Cash Flows from Operating Activities section under the indirect method.**

Ex. 13–15

A.	**Net cash flow from operating activities**		**$357,500**
	Increase in accounts receivable	**$ 14,300**	
	Increase in prepaid expenses	**2,970**	
	Decrease in income taxes payable	**7,700**	
	Gain on sale of investments	**13,200**	**38,170**
			$395,670
	Depreciation	**$(29,480)**	
	Decrease in inventories	**(19,140)**	
	Increase in accounts payable	**(5,280)**	**(53,900)**
	Net income, per income statement		**$341,770**

Note to Instructors: **The net income must be determined by working backward through the Cash Flows from Operating Activities section of the statement of cash flows. Hence, those items that were added (deducted) to determine net cash flow from operating activities must be deducted (added) to determine net income.**

Ex. 13–15 (Concluded)

B. Curwen's net income differed from cash flows from operations because of:

- **$29,480 of depreciation expense which has no effect on cash flows from operating activities,**
- **a $13,200 gain on the sale of investments. The proceeds from this sale, which include the gain, are reported in the Investing Activities section of the statement of cash flows.**
- **Changes in current operating assets and liabilities that are added or deducted, depending on their effect on cash flows:**

  Increase in accounts receivable, $14,300
  Increase in prepaid expenses, $2,970
  Decrease in income taxes payable, $7,700
  Decrease in inventories, $19,140
  Increase in accounts payable, $5,280

Ex. 13–16

A.

National Beverage Co. Cash Flows from Operating Activities (in thousands)		
Cash flows from operating activities:		
Net income	$49,311	
Adjustments to reconcile net loss to net		
cash flow from operating activities:		
Depreciation	11,580	
Gain on disposal of property	(1,188)	
Other items involving noncash expenses	1,383	
Changes in current operating assets and		
liabilities:		
Increase in accounts receivable	(1,746)	
Decrease in inventory	990	
Increase in prepaid expenses	(605)	
Decrease in accounts payable	(710)	
Decrease in accrued and other current liabilities	(995)	
Net cash flow from operating activities		$58,020

B. National Beverage is doing well financially. The company has positive earnings and positive net cash flow from operating activities. The company continues to grow, and the trend in recent years has been positive. The increase in accounts receivable is a positive sign, indicating an increase in sales.

Ex. 13–17

A.

Olson-Jones Industries, Inc. Statement of Cash Flows For the Year Ended December 31, 20Y2		
Cash flows from operating activities:		
Net income	$ 62	
Adjustments to reconcile net income to net		
cash flow from operating activities:		
Depreciation	26	
Gain on sale of land	(40)	
Changes in current operating assets and		
liabilities:		
Increase in accounts receivable	(6)	
Increase in inventories	(18)	
Increase in accounts payable	14	
Net cash flow from operating activities		$ 38
Cash flows from investing activities:		
Cash received from sale of land	$120	
Cash paid for purchase of equipment	(30)	
Net cash flow from investing activities		90
Cash flows from financing activities:		
Cash received from sale of common stock	$ 60	
Cash paid for dividends*	(19)	
Net cash flow from financing activities		41
Change in cash		$169
Cash at the beginning of the year		14
Cash at the end of the year		$183

* Dividends = $24 – $5 = $19

B. Olson-Jones Industries Inc.'s net income was more than the cash flows from operations because of:

- **$26 of depreciation expense, which has no effect on cash.**
- **A $40 gain on the sale of land. The proceeds from this sale of $120, which include the gain, are reported in the Investing Activities section of the statement of cash flows.**
- **Changes in current operating assets and liabilities that are added or deducted, depending on their effect on cash flows:**

  Increase in accounts receivable, $6 deducted
  Increase in inventories, $18 deducted
  Increase in accounts payable, $14 added

Ex. 13–18

1. **The increase in accounts receivable should be deducted from net income in the Cash Flows from Operating Activities section.**

2. **The gain on the sale of investments should be deducted from net income in the Cash Flows from Operating Activities section.**

3. **The increase in accounts payable should be added to net income in the Cash Flows from Operating Activities section.**

4. **The correct amount of cash at the beginning of the year, $240,000, should be added to the increase in cash.**

5. **The final amount should be the amount of cash at the end of the year, $350,160.**

6. **The final amount of net cash flow from operating activities is $381,360.**

Ex. 13–18 (Concluded)

A correct statement of cash flows would be as follows:

Shasta Inc. Statement of Cash Flows For the Year Ended December 31, 20Y9			
Cash flows from operating activities:			
Net income		$ 360,000	
Adjustments to reconcile net income to			
net cash flow from operating activities:			
Depreciation		100,800	
Gain on sale of investments		(17,280)	
Changes in current operating assets			
and liabilities:			
Increase in accounts receivable		(27,360)	
Increase in inventories		(36,000)	
Increase in accounts payable		3,600	
Decrease in accrued expenses			
payable		(2,400)	
Net cash flow from operating activities			$ 381,360
Cash flows from investing activities:			
Cash received from sale of investments		$ 240,000	
Cash paid for purchase of land		(259,200)	
Cash paid for purchase of equip.		(432,000)	
Net cash flow used for investing activities			(451,200)
Cash flows from financing activities:			
Cash received from sale of common stock		$ 312,000	
Cash paid for dividends		(132,000)	
Net cash flow from financing activities			180,000
Change in cash			$ 110,160
Cash at the beginning of the year			240,000
Cash at the end of the year			$ 350,160

Appendix 2 Ex. 13–19

A.	**Sales**	**$753,500**
	Decrease in accounts receivable balance	**48,400**
	Cash received from customers	**$801,900**
B.	**Income tax expense**	**$ 50,600**
	Decrease in income tax payable	**5,500**
	Cash payments for income taxes	**$ 56,100**

C. Because the customers paid more than the amount of sales for the period, cash received from customers exceeded sales made on account by $48,400 during the current year.

Appendix 2 Ex. 13–20

A.	**Cost of goods sold**	**$1,031,550**
	Decrease in accounts payable	**9,660**
		$1,041,210
	Decrease in inventories	**(15,410)**
	Cash payments for merchandise	**$1,025,800**
B.	**Operating expenses other than depreciation**	**$ 179,400**
	Decrease in accrued expenses payable	**1,380**
		$ 180,780
	Decrease in prepaid expenses	**(1,610)**
	Cash payments for operating expenses	**$ 179,170**

Appendix 2 Ex. 13–21

A. Cash flows from operating activities:

Cash received from customers	$ 522,760[1]	
Cash payments for merchandise	(302,400)[2]	
Cash payments for operating expenses	(99,960)[3]	
Cash payments for income taxes	(24,360)[4]	
Net cash flow from operating activities		$ 96,040

Computations:

1.	Sales	$511,000
	Decrease in accounts receivable	11,760
	Cash received from customers	$522,760
2.	Cost of goods sold	$290,500
	Increase in inventories	3,920
	Decrease in accounts payable	7,980
	Cash payments for merchandise	$302,400
3.	Operating expenses other than depreciation	$105,000
	Decrease in prepaid expenses	(3,780)
	Increase in accrued expenses payable	(1,260)
	Cash payments for operating expenses	$ 99,960
4.	Income tax expense	$ 21,700
	Add decrease in income tax payable	2,660
	Cash payments for income taxes	$ 24,360

B. The *direct method* directly reports cash receipts and payments. The cash received less the cash payments is the net cash flow from operating activities. Individual cash receipts and payments are reported in the Cash Flows from Operating Activities section.

The *indirect method* adjusts accrual-basis net income for revenues and expenses that do not involve the receipt or payment of cash to arrive at cash flows from operating activities.

Appendix 2 Ex. 13–22

Cash flows from operating activities:

Cash received from customers	$ 440,440[1]	
Cash payments for merchandise	(161,260)[2]	
Cash payments for operating expenses	(115,720)[3]	
Cash payments for income taxes	(39,600)	
Net cash flow from operating activities		$123,860

Computations:

1.	Sales	$445,500
	Increase in accounts receivable	(5,060)
	Cash received from customers	$440,440
2.	Cost of goods sold	$154,000
	Increase in inventories	12,100
	Increase in accounts payable	(4,840)
	Cash payments for merchandise	$161,260
3.	Operating expenses other than depreciation	$115,280
	Decrease in accrued expenses payable	1,760
	Decrease in prepaid expenses	(1,320)
	Cash payments for operating expenses	$115,720

PROBLEMS

Prob. 13–1A

Livers Inc. Statement of Cash Flows For the Year Ended December 31, 20Y3		
Cash flows from operating activities:		
Net income	$ 500,000	
Adjustments to reconcile net income to		
net cash flow from operating activities:		
Depreciation	100,000	
Gain on sale of investments	(75,000)	
Changes in current operating assets		
and liabilities:		
Increase in accounts receivable	(50,000)	
Increase in inventories	(20,000)	
Increase in accounts payable	40,000	
Decrease in accrued expenses payable	(5,000)	
Net cash flow from operating activities		$ 490,000
Cash flows from investing activities:		
Cash received from sale of investments	$ 175,000	
Cash paid for purchase of land	(500,000)	
Cash paid for purchase of equipment	(200,000)	
Net cash flow used for investing activities		(525,000)
Cash flows from financing activities:		
Cash received from sale of common stock	$ 125,000	
Cash paid for dividends*	(85,000)	
Net cash flow from financing activities		40,000
Change in cash		$ 5,000
Cash at the beginning of the year		150,000
Cash at the end of the year		$ 155,000

*** Cash paid for dividends = $90,000 + $25,000 – $30,000 = $85,000**

Prob. 13–1A (Concluded)

(Optional)

Livers Inc.
Spreadsheet (Work Sheet) for Statement of Cash Flows
For the Year Ended December 31, 20Y3

Account Title	Balance, Dec. 31, 20Y2	Transactions Debit	Transactions Credit	Balance, Dec. 31, 20Y3
Cash	150,000	(m) 5,000		155,000
Accounts receivable (net)	400,000	(l) 50,000		450,000
Inventories	750,000	(k) 20,000		770,000
Investments	100,000		(j) 100,000	0
Land	0	(i) 500,000		500,000
Equipment	1,200,000	(h) 200,000		1,400,000
Accum. depr.—equipment	(500,000)		(g) 100,000	(600,000)
Accounts payable	(300,000)		(f) 40,000	(340,000)
Accrued expenses payable	(50,000)	(e) 5,000		(45,000)
Dividends payable	(25,000)		(d) 5,000	(30,000)
Common stock, $4 par	(600,000)		(c) 100,000	(700,000)
Paid-in capital in excess				
of par—common stock	(175,000)		(c) 25,000	(200,000)
Retained earnings	(950,000)	(b) 90,000	(a) 500,000	(1,360,000)
Totals	0	870,000	870,000	0
Operating activities:				
Net income		(a) 500,000		
Depreciation		(g) 100,000		
Gain on sale of investments			(j) 75,000	
Increase in accounts				
receivable			(l) 50,000	
Increase in inventories			(k) 20,000	
Increase in accounts payable		(f) 40,000		
Decrease in accrued				
expenses payable			(e) 5,000	
Investing activities:				
Purchase of equipment			(h) 200,000	
Purchase of land			(i) 500,000	
Sale of investments		(j) 175,000		
Financing activities:				
Declaration of cash dividends			(b) 90,000	
Sale of common stock		(c) 125,000		
Increase in dividends payable		(d) 5,000		
Net change in cash			(m) 5,000	
Totals		945,000	945,000	

Note to Instructor: **The letters in the debit and credit columns are included for reference purposes only.**

Prob. 13–2A

Yellow Dog Enterprises Inc. Statement of Cash Flows For the Year Ended December 31, 20Y8		
Cash flows from operating activities:		
Net income	$ 190,000	
Adjustments to reconcile net income to		
net cash flow from operating activities:		
Depreciation	115,000	
Changes in current operating assets		
and liabilities:		
Decrease in accounts receivable	25,000	
Increase in inventory	(110,000)	
Increase in prepaid expenses	(5,000)	
Increase in accounts payable	10,000	
Net cash flow from operating activities		$ 225,000
Cash flows from investing activities:		
Cash paid for equipment	$(395,000)	
Net cash flow used for investing activities		(395,000)
Cash flows from financing activities:		
Cash received from sale of common stock	$ 600,000	
Cash paid for dividends	(50,000)	
Cash paid to retire mortgage note payable	(400,000)	
Net cash flow used for financing activities		150,000
Change in cash		$ (20,000)
Cash at the beginning of the year		100,000
Cash at the end of the year		$ 80,000

Note to Instructors: **The disposal of fully depreciated equipment is not included in the cash flow statement because there is no associated cash flow. This transaction strictly involves the removal of $75,000 from the equipment and accumulated depreciation—equipment accounts.**

Prob. 13–2A (Concluded)

(Optional)

Yellow Dog Enterprises Inc.
Spreadsheet (Work Sheet) for Statement of Cash Flows
For the Year Ended December 31, 20Y8

Account Title	Balance, Dec. 31, 20Y7	Transactions Debit	Transactions Credit	Balance, Dec. 31, 20Y8
Cash	100,000		(l) 20,000	80,000
Accounts receivable (net)	300,000		(k) 25,000	275,000
Merchandise inventory	400,000	(j) 110,000		510,000
Prepaid expenses	10,000	(i) 5,000		15,000
Equipment	750,000	(h) 395,000	(g) 75,000	1,070,000
Accum. depr.—equipment	(160,000)	(g) 75,000	(f) 115,000	(200,000)
Accounts payable	(90,000)		(e) 10,000	(100,000)
Mortgage note payable	(400,000)	(d) 400,000		0
Common stock, $10 par	(200,000)		(c) 400,000	(600,000)
Paid-in capital in excess				
of par—common stock	(100,000)		(c) 200,000	(300,000)
Retained earnings	(610,000)	(b) 50,000	(a) 190,000	(750,000)
Totals	0	1,035,000	1,035,000	0
Operating activities:				
Net income		(a) 190,000		
Depreciation		(f) 115,000		
Decrease in accts. receivable		(k) 25,000		
Increase in merchandise				
inventory			(j) 110,000	
Increase in prepaid expenses			(i) 5,000	
Increase in accounts payable		(e) 10,000		
Investing activities:				
Purchase of equipment			(h) 395,000	
Financing activities:				
Payment of cash dividends			(b) 50,000	
Sale of common stock		(c) 600,000		
Payment of mortgage note				
payable			(d) 400,000	
Net decrease in cash		(l) 20,000		
Totals		960,000	960,000	

Note to Instructor: **The letters in the debit and credit columns are included for reference purposes only.**

Prob. 13–3A

Whitman Co. Statement of Cash Flows For the Year Ended December 31, 20Y2		
Cash flows from operating activities:		
Net loss	$ (35,320)	
Adjustments to reconcile net loss to		
net cash flow from operating activities:		
Depreciation*	55,620	
Loss on sale of land**	12,600	
Changes in current operating assets		
and liabilities:		
Increase in accounts receivable	(66,960)	
Increase in inventories	(105,480)	
Decrease in prepaid expenses	5,760	
Decrease in accounts payable	(35,820)	
Net cash flow used for operating activities		$(169,600)
Cash flows from investing activities:		
Cash received from land sold	$ 151,200	
Cash paid for acquisition of building	(561,600)	
Cash paid for purchase of equipment	(104,400)	
Net cash flow used for investing activities		(514,800)
Cash flows from financing activities:		
Cash received from issuance of		
bonds payable	$ 270,000	
Cash received from issuance of		
common stock	400,000	
Cash paid for dividends	(32,400)	
Net cash flow from financing activities		637,600
Change in cash		$ (46,800)
Cash at the beginning of the year		964,800
Cash at the end of the year		$ 918,000

* Depreciation = $26,280 + $29,340

** Loss on sale of land = $151,200 – $163,800

Prob. 13–3A (Concluded)

(Optional)

Whitman Co.
Spreadsheet (Work Sheet) for Statement of Cash Flows
For the Year Ended December 31, 20Y2

Account Title	Balance, Dec. 31, 20Y1	Transactions Debit	Transactions Credit	Balance, Dec. 31, 20Y2
Cash	964,800		(o) 46,800	918,000
Accounts receivable	761,940	(g) 66,960		828,900
Inventories	1,162,980	(h) 105,480		1,268,460
Prepaid expenses	35,100		(f) 5,760	29,340
Land	479,700		(l) 163,800	315,900
Buildings	900,900	(k) 561,600		1,462,500
Accum. depr.—buildings	(382,320)		(e) 26,280	(408,600)
Equipment	454,680	(i) 104,400	(j) 46,800	512,280
Accum. depr.—equipment	(158,760)	(j) 46,800	(d) 29,340	(141,300)
Accounts payable	(958,320)	(c) 35,820		(922,500)
Bonds payable	0		(m) 270,000	(270,000)
Common stock, $25 par	(117,000)		(n) 200,000	(317,000)
Paid-in capital in excess of				
par—common stock	(558,000)		(n) 200,000	(758,000)
Retained earnings	(2,585,700)	(a) 35,320		(2,582,780)
		(b) (32,400)		
Totals	0	923,980	988,780	(64,800)
Operating activities:				
Net loss			(a) 35,320	
Depreciation—equipment		(d) 29,340		
Depreciation—buildings		(e) 26,280		
Loss on sale of land		(l) 12,600		
Increase in accts. receivable			(g) 66,960	
Increase in inventories			(h) 105,480	
Decrease in prepaid expenses		(f) 5,760		
Decrease in accounts payable			(c) 35,820	
Investing activities:				
Purchase of equipment			(i) 104,400	
Acquisition of building			(k) 561,600	
Sale of land		(l) 151,200		
Financing activities:				
Payment of cash dividends			(b) (32,400)	
Issuance of bonds payable		(m) 270,000		
Issuance of common stock		(n) 400,000		
Net decrease in cash		(o) 46,800		
Totals		941,980	877,180	

Appendix 2 Prob. 13–4A

Canace Products Inc. Statement of Cash Flows For the Year Ended December 31, 20Y6		
Cash flows from operating activities:		
Cash received from customers[1]	**$ 5,960,600**	
Cash payments for merchandise[2]	**(2,456,800)**	
Cash payments for operating expenses[3]	**(3,107,400)**	
Cash payments for income taxes	**(102,800)**	
Net cash flow from operating activities		**$ 293,600**
Cash flows from investing activities:		
Cash received from sale of investments	**$ 176,000**	
Cash paid for purchase of land	**(520,000)**	
Cash paid for purchase of equipment	**(200,000)**	
Net cash flow used for investing activities		**(544,000)**
Cash flows from financing activities:		
Cash received from sale of common stock	**$ 240,000**	
Cash paid for dividends*	**(25,600)**	
Net cash flow from financing activities		**214,400**
Change in cash		**$ (36,000)**
Cash at the beginning of the year		**679,400**
Cash at the end of the year		**$ 643,400**

Reconciliation of Net Income with Cash Flows from Operating Activities:

Net income……	**$217,200**
Adjustments to reconcile net income to net cash flow from operating activities:	
Depreciation……	**44,000**
Loss on sale of investments……	**64,000**
Changes in current operating assets and liabilities:	
Increase in accounts receivable……	**(19,400)**
Increase in inventories……	**(28,200)**
Increase in accounts payable……	**23,400**
Decrease in accrued expenses payable……	**(7,400)**
Net cash flow from operating activities……	**$293,600**

*** Dividends paid: $28,000 + $6,400 – $8,800 = $25,600**

Appendix 2 Prob. 13–4A (Concluded)

Computations:

1.	**Sales**	**$5,980,000**
	Increase in accounts receivable	**(19,400)**
	Cash received from customers	**$5,999,400**
2.	**Cost of goods sold**	**$2,452,000**
	Increase in inventories	**28,200**
	Increase in accounts payable	**(23,400)**
	Cash payments for merchandise	**$2,456,800**
3.	**Operating expenses other than depreciation**	**$3,100,000**
	Decrease in accrued expenses payable	**7,400**
	Cash payments for operating expenses	**$3,107,400**

Appendix 2 Prob. 13–5A

Livers Inc. Statement of Cash Flows For the Year Ended December 31, 20Y3		
Cash flows from operating activities:		
Cash received from customers[1]	$ 2,950,000	
Cash payments for merchandise[2]	(1,380,000)	
Cash payments for operating expenses[3]	(955,000)	
Cash payments for income taxes	(125,000)	
Net cash flow from operating activities		$ 490,000
Cash flows from investing activities:		
Cash received from sale of investments	$ 175,000	
Cash paid for purchase of land	(500,000)	
Cash paid for purchase of equipment	(200,000)	
Net cash flow used for investing activities		(525,000)
Cash flows from financing activities:		
Cash received from sale of common stock	$ 125,000	
Cash paid for dividends[4]	(85,000)	
Net cash flow from financing activities		40,000
Change in cash		$ 5,000
Cash at the beginning of the year		150,000
Cash at the end of the year		$ 155,000

Reconciliation of Net Income with Cash Flows from Operating Activities:

Net income	$500,000
Adjustments to reconcile net income to net cash flow from operating activities:	
Depreciation	100,000
Gain on sale of investments	(75,000)
Changes in current operating assets and liabilities:	
Increase in accounts receivable	(50,000)
Increase in inventories	(20,000)
Increase in accounts payable	40,000
Decrease in accrued expenses payable	(5,000)
Net cash flow from operating activities	$490,000

Appendix 2 Prob. 13–5A (Concluded)

Computations:

1.	**Sales**	**$3,000,000**
	Increase in accounts receivable	**(50,000)**
	Cash received from customers	**$2,950,000**
2.	**Cost of goods sold**	**$1,400,000**
	Increase in inventories	**20,000**
	Increase in accounts payable	**(40,000)**
	Cash payments for merchandise	**$1,380,000**
3.	**Operating expenses other than depreciation**	**$ 950,000**
	Decrease in accrued expenses payable	**5,000**
	Cash payments for operating expenses	**$ 955,000**
4.	**Cash dividends declared**	**$ 90,000**
	Increase in dividends payable	**(5,000)**
	Cash payments for dividends	**$ 85,000**

Prob. 13–1B

Merrick Equipment Co. Statement of Cash Flows For the Year Ended December 31, 20Y9		
Cash flows from operating activities:		
Net income	$ 141,680	
Adjustments to reconcile net income to		
net cash flow from operating activities:		
Depreciation	14,790	
Loss on sale of investments	10,200	
Changes in current operating assets		
and liabilities:		
Increase in accounts receivable	(19,040)	
Increase in inventories	(8,670)	
Increase in accounts payable	11,560	
Increase in accrued expenses		
payable	3,740	
Net cash flow from operating activities		$ 154,260
Cash flows from investing activities:		
Cash received from sale of investments	$ 91,800	
Cash paid for purchase of land	(295,800)	
Cash paid for purchase of equipment	(80,580)	
Net cash flow used for investing activities		(284,580)
Cash flows from financing activities:		
Cash received from sale of common stock	$ 250,000	
Cash paid for dividends*	(96,900)	
Net cash flow from financing activities		153,100
Change in cash		$ 22,780
Cash at the beginning of the year		47,940
Cash at the end of the year		$ 70,720

* $102,000 + $20,400 – $25,500 = $96,900

Prob. 13–1B (Concluded)

(Optional)

Merrick Equipment Co.
Spreadsheet (Work Sheet) for Statement of Cash Flows
For the Year Ended December 31, 20Y9

Account Title	Balance, Dec. 31, 20Y8	Transactions Debit	Transactions Credit	Balance, Dec. 31, 20Y9
Cash	47,940	(m) 22,780		70,720
Accounts receivable (net)	188,190	(l) 19,040		207,230
Inventories	289,850	(k) 8,670		298,520
Investments	102,000		(j) 102,000	0
Land	0	(i) 295,800		295,800
Equipment	358,020	(h) 80,580		438,600
Accum. depr.—equipment	(84,320)		(g) 14,790	(99,110)
Accounts payable	(194,140)		(f) 11,560	(205,700)
Accrued expenses payable	(26,860)		(e) 3,740	(30,600)
Dividends payable	(20,400)		(d) 5,100	(25,500)
Common stock, $1 par	(102,000)		(c) 100,000	(202,000)
Paid-in capital in excess				
of par—common stock	(204,000)		(c) 150,000	(354,000)
Retained earnings	(354,280)	(b) 102,000	(a) 141,680	(393,960)
Totals	0	528,870	528,870	0
Operating activities:				
Net income		(a) 141,680		
Depreciation		(g) 14,790		
Loss on sale of investments		(j) 10,200		
Increase in accounts				
receivable			(l) 19,040	
Increase in inventories			(k) 8,670	
Increase in accounts payable		(f) 11,560		
Increase in accrued expenses				
payable		(e) 3,740		
Investing activities:				
Purchase of equipment			(h) 80,580	
Purchase of land			(i) 295,800	
Sale of investments		(j) 91,800		
Financing activities:				
Declaration of cash dividends			(b) 102,000	
Sale of common stock		(c) 250,000		
Increase in dividends payable		(d) 5,100		
Net change in cash			(m) 22,780	
Totals		528,870	528,870	

Note to Instructor: **The letters in the debit and credit columns are included for reference purposes only.**

Prob. 13–2B

Harris Industries Inc. Statement of Cash Flows For the Year Ended December 31, 20Y4		
Cash flows from operating activities:		
Net income	$ 524,580	
Adjustments to reconcile net income to		
net cash flow from operating activities:		
Depreciation	74,340	
Patent amortization	5,040	
Changes in current operating assets		
and liabilities:		
Increase in accounts receivable	(73,080)	
Decrease in inventories	134,680	
Increase in prepaid expenses	(6,440)	
Decrease in accounts payable	(89,600)	
Decrease in salaries payable	(8,120)	
Net cash flow from operating activities		$ 561,400
Cash flows from investing activities:		
Cash paid for construction of building	$(579,600)	
Net cash flow used for investing activities		(579,600)
Cash flows from financing activities:		
Cash received from issuance of mortgage note	$ 224,000	
Cash paid for dividends*	(123,480)	
Net cash flow from financing activities		100,520
Change in cash		$ 82,320
Cash at the beginning of the year		360,920
Cash at the end of the year		$ 443,240
Schedule of Noncash Financing and Investing Activities:		
Issuance of common stock to retire bonds		$ 390,000

*Cash paid for dividends = $131,040 + $25,200 – $32,760 = $123,480

Prob. 13–2B (Continued)

(Optional)

Harris Industries Inc. Spreadsheet (Work Sheet) for Statement of Cash Flows For the Year Ended December 31, 20Y4						
Account Title	Balance, Dec. 31, 20Y3	Transactions	Debit		Credit	Balance, Dec. 31, 20Y4
Cash	360,920	(p)	82,320			443,240
Accounts receivable (net)	592,200	(o)	73,080			665,280
Inventories	1,022,560			(n)	134,680	887,880
Prepaid expenses	25,200	(m)	6,440			31,640
Land	302,400					302,400
Buildings	1,134,000	(l)	579,600			1,713,600
Accum. depr.—buildings	(414,540)			(k)	51,660	(466,200)
Machinery and equipment	781,200					781,200
Accum. depr.—machinery						
and equipment	(191,520)			(j)	22,680	(214,200)
Patents	112,000			(i)	5,040	106,960
Accounts payable	(927,080)	(h)	89,600			(837,480)
Dividends payable	(25,200)			(g)	7,560	(32,760)
Salaries payable	(87,080)	(f)	8,120			(78,960)
Mortgage note payable	0			(e)	224,000	(224,000)
Bonds payable	(390,000)	(d)	390,000			0
Common stock, $5 par	(50,400)			(c)	150,000	(200,400)
Paid-in capital in excess of						
par—common stock	(126,000)			(c)	240,000	(366,000)
Retained earnings	(2,118,660)	(b)	131,040	(a)	524,580	(2,512,200)
Totals	0		1,360,200		1,360,200	0

Note to Instructor: **The letters in the debit and credit columns are included for reference purposes only.**

Prob. 13–2B (Concluded)

Harris Industries Inc.
Spreadsheet (Work Sheet) for Statement of Cash Flows
For the Year Ended December 31, 20Y4

Account Title	Balance, Dec. 31, 20Y3	Transactions		Balance, Dec. 31, 20Y4
		Debit	Credit	
Operating activities:				
Net income		(a) 524,580		
Depreciation—buildings		(k) 51,660		
Depreciation—machinery				
and equipment		(j) 22,680		
Amortization of patents		(i) 5,040		
Increase in accounts				
receivable			(o) 73,080	
Decrease in inventories		(n) 134,680		
Increase in prepaid expenses			(m) 6,440	
Decrease in accounts payable			(h) 89,600	
Decrease in salaries payable			(f) 8,120	
Investing activities:				
Construction of building			(l) 579,600	
Financial activities:				
Declaration of cash dividends			(b) 131,040	
Issuance of mortgage note				
payable		(e) 224,000		
Increase in dividends payable		(g) 7,560		
Schedule of noncash investing				
and financing activities:				
Issuance of common stock				
to retire bonds		(c) 390,000	(d) 390,000	
Net change in cash			(p) 82,320	
Totals		1,360,200	1,360,200	

Prob. 13–3B

Coulson Inc. Statement of Cash Flows For the Year Ended December 31, 20Y2		
Cash flows from operating activities:		
Net income	$ 326,600	
Adjustments to reconcile net income to		
net cash flow from operating activities:		
Depreciation	68,400	
Gain on sale of land	(60,000)	
Changes in current operating assets		
and liabilities:		
Increase in accounts receivable	(94,800)	
Increase in inventories	(52,800)	
Decrease in prepaid expenses	7,800	
Decrease in accounts payable	(37,200)	
Increase in income taxes payable	4,800	
Net cash flow from operating activities		$ 162,800
Cash flows from investing activities:		
Cash received from sale of land	$ 456,000	
Cash paid for acquisition of building	(990,000)	
Cash paid for purchase of equipment	(196,800)	
Net cash flow used for investing activities		(730,800)
Cash flows from financing activities:		
Cash received from issuance of bonds payable	$ 330,000	
Cash received from issuance of common stock	280,000	
Cash paid for dividends	(79,200)	
Net cash flow from financing activities		530,800
Change in cash		$ (37,200)
Cash at the beginning of the year		337,800
Cash at the end of the year		$ 300,600

Prob. 13–3B (Concluded)

(Optional)

Coulson Inc.
Spreadsheet (Work Sheet) for Statement of Cash Flows
For the Year Ended December 31, 20Y2

Account Title	Balance, Dec. 31, 20Y1	Transactions Debit	Transactions Credit	Balance, Dec. 31, 20Y2
Cash	337,800		(p) 37,200	300,600
Accounts receivable (net)	609,600	(i) 94,800		704,400
Inventories	865,800	(h) 52,800		918,600
Prepaid expenses	26,400		(g) 7,800	18,600
Land	1,386,000		(m) 396,000	990,000
Buildings	990,000	(l) 990,000		1,980,000
Accum. depr.—buildings	(366,000)		(f) 31,200	(397,200)
Equipment	529,800	(j) 196,800	(k) 66,000	660,600
Accum. depr.—equipment	(162,000)	(k) 66,000	(e) 37,200	(133,200)
Accounts payable	(631,200)	(d) 37,200		(594,000)
Income taxes payable	(21,600)		(c) 4,800	(26,400)
Bonds payable	0		(n) 330,000	(330,000)
Common stock, $20 par	(180,000)		(o) 140,000	(320,000)
Paid-in capital in excess of par—common stock	(810,000)		(o) 140,000	(950,000)
Retained earnings	(2,574,600)	(b) 79,200	(a) 326,600	(2,822,000)
Totals	0	1,516,800	1,516,800	0
Operating activities:				
Net income		(a) 326,600		
Depreciation—equipment		(e) 37,200		
Depreciation—buildings		(f) 31,200		
Gain on sale of land			(m) 60,000	
Increase in accts. receivable			(i) 94,800	
Increase in inventories			(h) 52,800	
Decrease in prepaid expenses		(g) 7,800		
Decrease in accounts payable			(d) 37,200	
Increase in income taxes payable		(c) 4,800		
Investing activities:				
Purchase of equipment			(j) 196,800	
Acquisition of building			(l) 990,000	
Sale of land		(m) 456,000		
Financing activities:				
Payment of cash dividends			(b) 79,200	
Issuance of bonds payable		(n) 330,000		
Issuance of common stock		(o) 280,000		
Net decrease in cash		(p) 37,200		
Totals		1,510,800	1,510,800	

Appendix 2 Prob. 13–4B

Martinez Inc. Statement of Cash Flows For the Year Ended December 31, 20Y4		
Cash flows from operating activities:		
Cash received from customers[1]	$ 4,433,760	
Cash payments for merchandise[2]	(2,269,200)	
Cash payments for operating expenses[3]	(1,356,240)	
Cash payments for income tax	(299,100)	
Net cash flow from operating activities		$ 509,220
Cash flows from investing activities:		
Cash received from sale of investments	$ 588,000	
Cash paid for land	(960,000)	
Cash paid for equipment	(240,000)	
Net cash flow used for investing activities		(612,000)
Cash flows from financing activities:		
Cash received from sale of common stock	$ 600,000	
Cash paid for dividends*	(518,400)	
Net cash flow from financing activities		81,600
Increase in cash		$ (21,180)
Cash at the beginning of the year		683,100
Cash at the end of the year		$ 661,920

Reconciliation of Net Income with Cash Flows from Operating Activities:

Net income	$ 558,960
Adjustments to reconcile net income to net cash flow from operating activities:	
Depreciation expense	113,100
Gain on sale of investments	(156,000)
Changes in current operating assets and liabilities:	
Increase in accounts receivable	(78,240)
Increase in inventories	(30,600)
Increase in accounts payable	113,400
Decrease in accrued expenses payable	(11,400)
Net cash flow from operating activities	$ 509,220

* Dividends paid: $528,000 + $91,200 – $100,800 = $518,400

Appendix 2 Prob. 13–4B (Concluded)

Computations:

1.	**Sales**	**$4,512,000**
	Increase in accounts receivable	**(78,240)**
	Cash received from customers	**$4,433,760**
2.	**Cost of goods sold**	**$2,352,000**
	Increase in inventories	**30,600**
	Increase in accounts payable	**(113,400)**
	Cash payments for merchandise	**$2,269,200**
3.	**Operating expenses other than depreciation**	**$1,344,840**
	Decrease in accrued expenses payable	**11,400**
	Cash payments for operating expenses	**$1,356,240**

Appendix 2 Prob. 13–5B

Merrick Equipment Co. Statement of Cash Flows For the Year Ended December 31, 20Y9		
Cash flows from operating activities:		
Cash received from customers[1]	$ 2,004,858	
Cash payments for merchandise[2]	(1,242,586)	
Cash payments for operating expenses[3]	(513,559)	
Cash payments for income taxes	(94,453)	
Net cash flow from operating activities		$ 154,260
Cash flows from investing activities:		
Cash received from sale of investments	$ 91,800	
Cash paid for purchase of land	(295,800)	
Cash paid for purchase of equipment	(80,580)	
Net cash flow used for investing activities		(284,580)
Cash flows from financing activities:		
Cash received from sale of common stock	$ 250,000	
Cash paid for dividends*	(96,900)	
Net cash flow from financing activities		153,100
Change in cash		$ 22,780
Cash at the beginning of the year		47,940
Cash at the end of the year		$ 70,720

Reconciliation of Net Income with Cash Flows from Operating Activities:

Net income	$141,680
Adjustments to reconcile net income to net cash flow from operating activities:	
Depreciation	14,790
Loss on sale of investments	10,200
Changes in current operating assets and liabilities:	
Increase in accounts receivable	(19,040)
Increase in inventories	(8,670)
Increase in accounts payable	11,560
Increase in accrued expenses payable	3,740
Net cash flow from operating activities	$154,260

* Dividends paid: $102,000 + $20,400 – $25,500 = $96,900

Appendix 2 Prob. 13–5B (Concluded)

Computations:

1.	**Sales**	**$2,023,898**
	Increase in accounts receivable	**(19,040)**
	Cash received from customers	**$2,004,858**
2.	**Cost of goods sold**	**$1,245,476**
	Increase in inventories	**8,670**
	Increase in accounts payable	**(11,560)**
	Cash payments for merchandise	**$1,242,586**
3.	**Operating expenses other than depreciation**	**$ 517,299**
	Increase in accrued expenses payable	**(3,740)**
	Cash payments for operating expenses	**$ 513,559**

ANALYSIS FOR DECISION MAKING

ADM–1

A.

	Amazon	Best Buy	Walmart
Cash flows from operating activities	$ 6,842	$1,935	$ 28,564
Cash used to purchase property, plant, and equipment	(4,893)	(561)	(12,174)
Free cash flow	$ 1,949	$1,374	$ 16,390

B.

	Amazon	Best Buy	Walmart
Ratio of free cash flow to sales	2.2% ($1,949 ÷ $88,988)	3.4% ($1,374 ÷ $40,339)	3.4% ($16,390 ÷ $485,651)

C. Amazon's free cash flow is $1,949 million, which is slightly higher than Best Buy and much lower than Walmart. However, these companies vary greatly in size; thus, comparing absolute free cash flow across these companies is not very meaningful. A relative measure that can be used to compare free cash flow across the three companies is the ratio of free cash flow to sales. Using this measure, it can be seen that Amazon is weaker at generating free cash flow from sales than are Best Buy and Walmart. Amazon generates free cash flow equal to 2.2% of sales, while Best Buy and Walmart each generate free cash flow equal to 3.4% of sales.

ADM–2

A.

	Year 3	Year 2	Year 1
Cash flows from operating activities	$ 36	$ (43)	$218
Cash used to purchase property, plant, and equipment	(42)	(68)	(82)
Free cash flow	$ (6)	$(111)	$136

B.

	Year 3	Year 2	Year 1
Ratio of free cash flow to sales	–0.2% [$(6) ÷ $3,434]	–2.9% [$(111) ÷ $3,831]	3.4% [$136 ÷ $4,032)

The free cash flow information does accurately show the financial stress on RadioShack. Free cash flow and ratio of free cash flow to sales were negative in the most recent two years prior to bankruptcy. Moreover, the amount of cash used to purchase property, plant, and equipment declined across the three years. Thus, the free cash flow would have been even more negative if the purchases on property, plant, and equipment had remained at the Year 1 levels. It appears that RadioShack

ADM–2 (Concluded)

attempted to save cash by reducing property, plant, and equipment purchases. Lastly, the sales levels were declining across the three years. This is considered an unfavorable trend.

ADM–3

A. Total revenue is a good measure for assessing the relative size of the two companies. AT&T is clearly the larger company, with more than ten times the revenue of Facebook ($132,447 ÷ $12,466) in Year 3. While total assets are not provided, AT&T is also much larger than Facebook by this measure as well (more than seven times as large).

B. Total revenue growth is measured horizontally for each company using Year 1 as the base year as follows:

	Year 3	Year 2	Year 1
AT&T	104%	101%	100%
Facebook	245%	155%	100%

AT&T
104% = $132,447 ÷ $127,434
101% = $128,752 ÷ $127,434

Facebook
245% = $12,446 ÷ $5,089
155% = $7,872 ÷ $5,089

It is clear from this data that Facebook is growing much faster than AT&T. This is not surprising in that Facebook is a young company that is expanding services and regions. AT&T is a more mature company with less opportunity for service or regional expansion. In addition, Facebook is starting from a much smaller revenue base compared to AT&T. Fast growth is easier from a smaller base than a larger base of activity.

C. Cash used to purchase PP&E as a percent of the cash flows from operating activities:

	Year 3	Year 2	Year 1
AT&T	68%	61%	50%
Facebook	34%	32%	77%

AT&T
68% = $21,433 ÷ $31,338
61% = $21,228 ÷ $34,796
50% = $19,728 ÷ $39,176

Facebook
34% = $1,831 ÷ $5,457
32% = $1,362 ÷ $4,222
77% = $1,235 ÷ $1,612

ADM–3 (Continued)

D. The data indicate that AT&T requires more cash to purchase PP&E than does Facebook. In Years 2 and 3, the percent of cash flows from operations that is used to purchase PP&E is nearly double that of Facebook. Year 1 is a start-up year for Facebook and not likely a good indicator of future performance. Across all three years, as Facebook grows, the cash used for PP&E as a percent of cash flows from operating activities is declining. In contrast, across these three years, AT&T's cash used for PP&E as a percent of cash flows from operating activities is increasing. The net impact of cash used to purchase PP&E on free cash flow is more negative for AT&T than it is for Facebook. This is because cash used to purchase PP&E is subtracted from cash flows from operating activities in determining free cash flow.

E.

AT&T free cash flow

	Year 3	Year 2	Year 1
Cash flows from operating activities	$ 31,338	$ 34,796	$ 39,176
Cash used to purchase property, plant, and equipment	(21,433)	(21,228)	(19,728)
Free cash flow	$ 9,905	$ 13,568	$ 19,448

Ratio of free cash flow to revenues:

	Year 3	Year 2	Year 1
Ratio of free cash flow to revenues	7.5% ($9,905 ÷ $132,447)	10.5% ($13,568 ÷ $128,752)	15.3% ($19,448 ÷ $127,434)

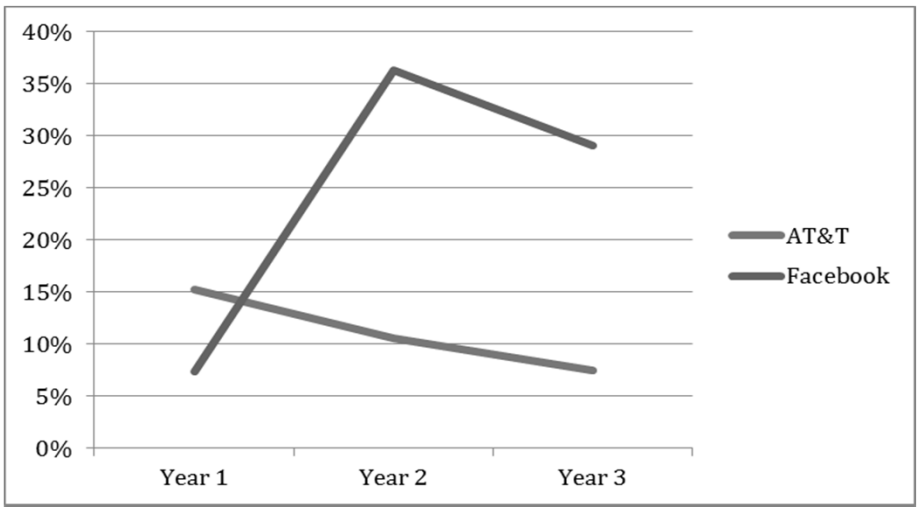
Facebook free cash flow

	Year 3	Year 2	Year 1
Cash flows from operating activities	$ 5,457	$ 4,222	$ 1,612
Cash used to purchase property, plant, and equipment	(1,831)	(1,362)	(1,235)
Free cash flow	$ 3,626	$ 2,860	$ 377

Ratio of free cash flow to revenues:

	Year 3	Year 2	Year 1
Ratio of free cash flow to revenues	29.1% ($3,626 ÷ $12,466)	36.3% ($2,860 ÷ $7,872)	7.4% ($377 ÷ $5,089)

ADM–3 (Concluded)



F. Facebook appears to have a better free cash flow position than does AT&T. In Years 2 and 3, Facebook's ratio of free cash flow to revenues is more than three times greater than AT&T's. The first year was a start-up year, so is not likely to be indicative of Facebook's free cash flow generating ability. Across the years, Facebook has significantly increased cash flows from operating activities. This is a major reason the ratio of free cash flows to revenues has increased. AT&T's ratio of free cash flows to revenues has steadily declined over these three years. This decline can be explained by the decline in cash flows from operating activities, while the cash needed to purchase PP&E has increased over the three years. The net result is a decline in the ratio.

ADM–4

A.

Net change in cash:

	Year 3	Year 2	Year 1
Net cash provided by operating activities	$ 2,914	$ 2,301	$ 1,786
Net cash used in investing activities	(2,349)	(2,162)	(1,563)
Net cash provided by (used in) financing activities	1,429	(404)	669
Net change in cash for the year	$ 1,994	$ (265)	$ 892

B.

Free cash flow:

	Year 3	Year 2	Year 1
Net cash provided by operating activities	$2,914	$2,301	$1,786
Additions to property, plant, and equipment	(132)	(84)	(55)
Free cash flow	$2,782	$2,217	$1,731

ADM–4 (Concluded)

C. The free cash flow is more than $2 billion in Years 2 and 3. Over the three-year period, free cash flow grew from $1,731 million to $2,782 million, or a 61% increase [($2,782 − $1,731) ÷ $1,731]. This is excellent free cash flow performance. The free cash flow has been used to make acquisitions and investments and repurchase common stock. The acquisitions and investments help grow the company and provide for flexibility for the future. The repurchase of common stock is a method of returning cash to stockholders.

D. The cash flow available for investment, dividends, debt repayments, and stock repurchases is best measured by the free cash flow. The change in cash for the period includes all of the sources and uses of cash, and thus does not say anything about the cash remaining for such uses.

TAKE IT FURTHER

TIF 13–1

Although this situation might seem harmless at first, it is, in fact, a violation of generally accepted accounting principles. The operating cash flow per share figure should not be shown on the face of the income statement. The income statement is constructed under accrual accounting concepts, while operating cash flow "undoes" the accounting accruals. Thus, the inclusion of cash flow information on the income statement could be confusing to users. Some users might not be able to distinguish between earnings and operating cash flow per share—or how to interpret the difference. By agreeing with Polly, Lucas has breached his professional ethics because the disclosure would violate generally accepted accounting principles. On a more subtle note, Polly is being somewhat disingenuous. Apparently, Polly is not pleased with this year's operating performance and would like to cover the earnings "bad news" with some "good cash flow news." An interesting question is: Would Polly be as interested in the dual per-share disclosures in the opposite scenario—with earnings per share improving and cash flow per share deteriorating? Probably not.

TIF 13–2

A sample solution based on Nike Inc.'s Form 10-K for the fiscal year ended May 31, 2015, follows:

1. **A. $4,680 million**
   B. $(175) million
   C. $(2,790) million
   D. $1,632 million

2. **The company has a very strong cash position, generating considerably more cash flows from operations than it requires for investing or financing activities.**

TIF 13–3

Memo

To: My Instructor
From: A+ Student
Re: Tidewater Inc. Financial Condition

Tidewater Inc. is a retailer that has been unprofitable in recent years. While the company has returned to profitability, there are several “red flags” indicating that the company's future prospects are highly uncertain. These red flags are discussed below:

- **The company has initiated a new marketing campaign that significantly increased the number of customers who are purchasing merchandise on credit using the company's branded credit card. This campaign significantly increased revenue and has helped the company return to profitability. However, it appears that the company has done a poor job of screening the creditworthiness of its new credit card customers. Increases in credit card purchases have resulted in a large accounts receivable balance. It is unlikely that the company will be able to collect a large portion of these accounts receivable, which will likely lead to a cash crisis.**
- **The purchases of deeply discounted merchandise appear to be backfiring. The company has received some “good deals” on price. However, the merchandise is only a “good deal” if the company can resell the merchandise at a profit. The large increase in inventory indicates that this is not the case. It appears that the merchandise has little customer appeal, and it is questionable whether the company will be able to sell the merchandise.**
- **The company has not been able to pay off its accounts payable in a timely manner, resulting in significant overdue accounts payable balances. While the company reports that most of the past-due payables have been paid, it is concerning that the company became overdue on its accounts payable. A retailer cannot afford a poor payment history, or it will be denied future merchandise shipments. This is a signal of a severe cash flow problem.**

These red flags suggest that the company is having severe operating cash flow difficulties, and the company's future prospects are highly uncertain.

chapter

13

Statement of Cash Flows

OPENING COMMENTS

This chapter demonstrates that the statement of cash flows is necessary for a complete picture of a company's financial condition. Both the direct and indirect methods of preparing a statement of cash flows are presented. Because the indirect method is the most commonly used method for reporting cash flows, it is the focus of the chapter. The direct method is covered in Appendix 2 of this chapter. If you choose to cover only the direct method, be aware that you will still need to refer students to the information on financing and investing activities in the chapter.

The chapter ends with a description and illustration of the value of evaluating a company's free cash flow. The first appendix describes how to use an electronic spreadsheet to develop a statement of cash flows using the indirect method. The second appendix explains the direct method of preparing a statement of cash flows.

After studying the chapter, your students should be able to:

1. Describe the cash flow activities reported on the statement of cash flows.
2. Prepare the cash flows from operating activities section of the statement of cash flows using the indirect method.
3. Prepare the cash flows from investing activities section of the statement of cash flows.
4. Prepare the cash flows from financing activities section of the statement of cash flows.
5. Prepare a statement of cash flows.

ADM Describe and illustrate the use of free cash flow in evaluating a company's cash flow.

KEY TERMS

cash flow per share
cash flows from financing activities
cash flows from investing activities
cash flows from operating activities
direct method
free cash flow
indirect method
statement of cash flows

STUDENT FAQS

- Why do most preparers of cash flow statements prefer the indirect method?
- I just don't see a need for the cash flow statement. Who cares about the cash flow statement since it tells the reader only where the company's money came from and where the company's money was spent?
- Why does the cash flow statement have to equal the change in the cash account?
- Why does only the Operating section of the cash flow statement change when preparing the statement under the two different methods?
- If the cash flow statement is so important and helpful, why don't we prepare all the financial statements on a cash basis?
- Why do we have to prepare a schedule of important noncash items to accompany this statement? After all, this is the statement that is based on the cash inflows and outflows.
- Why are there two methods to prepare the statement of cash flows?
- Why are gains and losses on disposals of assets treated as adjustments to the cash flows from operations but the cash part of the transaction is a source of funds under investing? Shouldn't it all go under one section?
- Why can't you assume that a company is financially healthy and liquid if it has a positive cash flow?

OBJECTIVE 1

Describe the cash flow activities reported in the statement of cash flows.

SYNOPSIS

The statement of cash flows reports a company's cash inflows and outflows. It provides information that answers questions about how the company generates cash from operations, how it maintains or expands its operations, how it meets its financial obligations, and whether it has the cash to pay dividends. The cash flow statement is used by both external and internal users. The cash flow statement is divided into three sections: the operating activities are the cash flows from transactions that affect the net income of

the company, the investing activities are the cash flows from transactions that affect investment in noncurrent assets, and the financing activities are the cash flows from transactions that affect the debt and equity of the company. The ending cash on the statement of the cash flows equals the cash reported on the balance sheet at the end of the year.

Cash flows from operating activities report the cash inflow and outflow from a company's day-to-day operations. In the direct method, the primary operating inflows of cash are received from customers, and the primary outflows of cash are for merchandise, operating expenses, interest, and tax payments. The indirect method reports cash flows from operating activities beginning with net income and adjusting it for revenues and expenses that do not involve the receipt or payment of cash. Both methods result in the same net cash flow from activities; however, due to the accessibility of the information, the indirect method is more commonly used. A company may enter into transactions that do not directly affect cash; they are reported in a separate section at the bottom of the statement of cash flows. The statement of cash flows format is shown in Exhibit 3.

Key Terms and Definitions

- **Cash Flow per Share** - Normally computed as cash flow from operations per share.
- **Cash Flows from Financing Activities** - The section of the statement of cash flows that reports cash flows from transactions affecting the equity and debt of the business.
- **Cash Flows from Investing Activities** - The section of the statement of cash flows that reports cash flows from transactions affecting investments in noncurrent assets.
- **Cash Flows from Operating Activities** - The section of the statement of cash flows that reports the cash transactions affecting the determination of net income.
- **Direct Method** - A method of reporting the cash flows from operating activities as the difference between the operating cash receipts and the operating cash payments.
- **Indirect Method** - A method of reporting the cash flows from operating activities as the net income from operations adjusted for all deferrals of past cash receipts and payments and all accruals of expected future cash receipts and payments.
- **Statement of Cash Flows** - A summary of the cash receipts and cash payments for a specific period of time, such as a month or a year.

Relevant Check Up Corner and Exhibits

- Exhibit 1 – Sources and Uses of Cash
- Exhibit 2 – Cash Flow from Operations: Direct and Indirect Methods—NetSolutions
- Exhibit 3 – Order of Reporting Statement of Cash Flows
- Check Up Corner 13-1 – Classifications of Cash Flows

SUGGESTED APPROACH

Provided below is a Writing Exercise to introduce the statement of cash flows. The exercise asks students to evaluate financial data from two companies. The goal is to point out that a firm's profits do not paint a total picture of its operations; cash flow data is also needed. Follow the Writing Exercise [Transparency Master (TM) 13-1] by reviewing TM 13-2, which lists the benefits of a statement of cash flows. A Lecture Aid is also provided here for reviewing the content of each section of the cash flow statement.

WRITING EXERCISE—Importance of the Statement of Cash Flows

TM 13-1 presents financial information taken from the accounting records of two companies. These companies have the same net incomes but very different cash flows. Even though both companies have the same sales, Company B did not collect as much cash from its customers. In addition, Company B did not invest as much cash in fixed assets; this could inhibit future growth.

Show this data to your students and ask them to comment, in writing, on any strengths or weaknesses they see in the two companies. After giving them a few minutes to study the information and write their comments, review their responses.

Possible response: Company B has maintained its cash position by selling fixed assets, while Company A is investing in fixed assets. This would bring into question the ability of Company B to remain competitive with Company A for future production. Additionally, the inability to collect from customers would bring into question the credit decisions Company B has been making, possibly granting credit to questionable customers to maintain sales. Company A has also been able to invest some surplus cash to provide returns, from which Company B will not have the same benefits.

LECTURE AID—Statement of Cash Flows

TMs 13-3 and 13-4 list the three sections of the statement of cash flows and the transactions included in each section. TM 13-5 defines the content of the schedule of noncash investing and financing activities.

After reviewing these TMs, you may want to discuss the treatment of interest on debt and interest/dividends on investments in the statement of cash flows. These transactions can be called the "three foolers," because students typically want to identify them as financing and investing activities instead of operating activities. Use TM 13-6 for this purpose.

Have students identify cash flows from operating, investing, and financing activities from their personal experiences. Some examples are listed below:

Operating activities: Cash inflows from a job, cash outflows for food or rent
Financing activities: Cash inflow from a student loan
Investing activities: Cash outflow for an automobile; cash inflow from selling a motorcycle

OBJECTIVE 2

Prepare the cash flows from operating activities section of the statement of cash flows using the indirect method.

SYNOPSIS

Using the indirect method of reporting cash flows for operating activities, a comparison is made between the account balances at the beginning and end of the year. By analyzing changes in noncash balance sheet accounts, changes in the cash account are determined indirectly. The equation, change in cash = change in

liabilities + change in stockholders' equity – noncash assets, shows how this method is used. To prepare the statement of cash flows, an income statement for the period is required and two balance sheets, one from the beginning of the period and one from the end of the period. Because net income is determined using the accrual method, it must be adjusted to determine cash flows from operating activities. Exhibit 5 shows the adjustments to net income for the direct method: expenses that do not affect cash are added, losses on the disposal of assets are added and gains are deducted, and finally changes in current assets and liabilities are added or deducted. Exhibit 6 demonstrates how the operating activities are calculated.

Relevant Check Up Corner and Exhibits

- Exhibit 4 – Income Statement and Comparative Balance Sheet
- Exhibit 5 – Adjustments to Net Income (Loss) Using the Indirect Method
- Exhibit 6 – Net Cash Flow From Operating Activities—Indirect Method
- Check Up Corner 13-2 – Cash Flows from Operating Activities

SUGGESTED APPROACH

Open your discussion of the indirect method with a basic outline of the reconciliation prepared in the Operating Activities section. TM 13-7 presents an overview of the reconciliation process. You will also want to illustrate this process by preparing a statement of cash flows as a demonstration problem.

LECTURE AID—Indirect Method

During your discussion of TM 13-7 (the reconciliation of net income to net cash flows from operating activities), stress the following points:

1. Noncash expenses must be added to remove these expenses from net income. They must be removed from net income because they did not cause cash to be paid out.

   Ask your students to identify examples of noncash items reported on the income statement and whether they would be added to or deducted from net income to determine cash flows from operating activities. Several examples are listed below.

Noncash Item	**Treatment**
Depreciation	Added to net income
Amortization of bond discount	Added to net income
Amortization of bond premium	Deducted from net income
Amortization of patents	Added to net income
Depletion expense	Added to net income

2. Any gains or losses on investing and financing activities affect the amount of cash that was received from selling investments or the amount of cash paid when settling debts. Because these activities are reported in the investing and financing sections of the statement of cash flows, the gain or loss included in the calculation of net income must be removed to isolate operating cash flows.

   For example, a building with a $50,000 book value is sold for $125,000—a $75,000 gain. The $75,000 gain must be removed from net income because it does not represent cash received from operations (buying and selling merchandise). The entire $125,000 cash proceeds from the building (which includes the gain) will be disclosed in the investing activities section. Remind students that losses are added and gains are subtracted to remove them from the net income.

3. Changes in current assets and current liability accounts related to operating activities must be considered to remove the effects of accrual accounting from net income and return to a cash-basis measure of operations. Emphasize that net cash flow from operating activities is different from net income because the income statement is based on the accrual basis of accounting. The statement of cash flows presents cash basis accounting.

DEMONSTRATION PROBLEM—Preparing a Statement of Cash Flows: Indirect Method

Because of the amount of data required to prepare a statement of cash flows, it is appropriate to use a problem from the text to demonstrate the preparation of the statement of cash flows. Use Problem 13-1A or 13-1B to demonstrate the indirect method.

Instruct your students to complete a couple of preparatory steps before attacking a cash flow problem. First, ask them to calculate the increase or decrease for every account on the balance sheet and write it in the margin of the text. When working through a demonstration problem, give them a few minutes of class time to complete this step on their own.

You may want to use the following algebraic proof to demonstrate why students need to calculate the amount by which each account on the balance sheet has increased or decreased:

$$\text{Assets} = \text{Liabilities} + \text{Stockholders' Equity}$$

$$\text{Cash} + \text{Noncash Assets} = \text{Liabilities} + \text{Stockholders' Equity}$$

$$\text{Change in Cash} + \text{Change in Noncash Assets} = \text{Change in Liabilities} + \text{Change in Stockholders' Equity}$$

or

$$\text{Change in Cash} = \text{Change in Liabilities} + \text{Change in Stockholders' Equity} - \text{Change in Noncash Assets}$$

If you can explain what caused your Noncash Assets, Liabilities, and Stockholders' Equity account balances to change, you have explained what caused the Cash account balance to change.

The second preparatory step is to go through the balance sheet accounts and note where the change in each account balance will be reported ("O" for operating activities, "I" for investing activities, and "F" for financing activities). A few accounts, namely Retained Earnings and Accumulated Depreciation, must be considered when preparing two sections of the statement of cash flows.

You will probably want to lead students through this step, instructing them to place an O, I, or F by each account title in the example problem. The accounts in Problem 13-1A or 13-1B would be coded as follows:

Cash (no code—this is the number we are trying to explain)
Accounts Receivable—O
Inventories—O
Investments—I
Land—I
Equipment—I
Accumulated Depreciation—O and I
Accounts Payable—O
Accrued Expenses—O
Dividends Payable— F
Common Stock—F
Paid-in Capital—F
Retained Earnings—O and F

Now your students are ready to attack the problem, beginning with the Operating Activities section. Students should be encouraged to use a "check-off" method in completing the statement of cash flows. The basics of the check-off method are as follows: When the total change in an account has been explained, check it off. After an account has been checked off, you don't need to look at it again.

For example, the first step in the Operating Activities section is to show the amount of net income. This information is obtained from the income statement or, in accounting class, from the "additional information" accompanying the problem. Net income is closed to the retained earnings account. If a change in the account balance has not been fully explained, the account cannot be checked off. Students must look at retained earnings again when preparing the Financing Activities section.

The next step in the Operating Activities section is to add back any depreciation, amortization, or depletion. What account on the balance sheet would contain the depreciation for the year? (Answer: Accumulated Depreciation) However, that account is also affected by entries to remove fixed assets when sold or discarded. If there were no disposals of equipment, the only entry in the accumulated depreciation account would be the adjusting entry for the year's depreciation expense. All changes in the account balance must be fully explained before all accounts can be checked off. Those are the basic steps in the check-off method.

At this time, instruct your students to review the additional information given with the problem to look for any gains and losses on investing and financing activities. Remind them that gains and losses occur only when assets are sold and liabilities settled.

Ask your students to answer the following questions: (1) If there had been a loss of $20,000 on the sale of investments, how would this be reported in the Operating Activities section of the statement of cash flows? (Answer: The loss would be added to net income.) (2) If fully depreciated equipment had been sold for $2,000, how would this be reported in the Operating Activities section of the statement of cash flows? (Answer: The $2,000 gain would be deducted from net income.)

Now it is time to look at the current assets and current liabilities related to operations. Instruct your students to go through the accounts coded with "O" and write down whether each account increased or decreased and by what amount. Then, ask your students to determine whether the change had a positive or negative effect on cash. Many students want to cling to text Exhibit 4 to assist with this task, so try to give them a logical approach to determine how account changes affect cash.

The suggested explanations are overly simplified and, therefore, not "totally" accurate. However, most of your students will find them useful. For example, if accounts receivable went up, did you sell more or less on credit? More. If you sold more on credit, did you sell more or less for cash? Less. If you sold less on cash, what was the effect on the Cash account? It decreased. Therefore, the change in accounts receivable is subtracted. Now, in reality, accounts receivable may have increased because customers are paying more slowly. Accounts receivable also may have increased simply because total sales increased without a corresponding increase in cash sales. When insightful students bring up these arguments, agree with them. Point out that the original explanation is useful because it is simple and tends to make sense to most students.

When accounts receivable decrease, your explanation is the inverse: The company sold less on credit, so it sold more for cash and the Cash account is increased. Explanations for changes in other accounts follow:

1. Increase in Inventory: The company bought more inventory, so it has to pay for more inventory. Cash is decreased.
2. Decrease in Inventory: The company bought less inventory, so it doesn't have to pay for as much inventory. Cash is increased.
3. Increase in Prepaid Expense: The company has prepaid more expenses using its cash. Cash is decreased.
4. Decrease in Prepaid Expense: The company has prepaid fewer expenses, saving its cash. Cash is increased.
5. Increase in Accounts Payable: The company has bought more on credit, so it has bought less with cash. Cash is increased.
6. Decrease in Accounts Payable: The company has bought less on credit, so it is buying more with cash. Cash is decreased.

After all accounts marked "O" have been checked off, it is time to move on to the investing and financing accounts.

OBJECTIVE 3

Prepare the cash flows from investing activities section of the statement of cash flows.

SYNOPSIS

Investing activities are cash inflows and outflows related to a company's long-term assets. It includes investments in the company such as the purchase and sale of fixed assets. Investments can be made outside the company as well. For example, buying and selling equity and debt securities, loaning money to another company, and collecting principal payments from a company that borrowed money.

Relevant Check Up Corner

- Check Up Corner 13-3 – Cash Flows from Investing Activities

SUGGESTED APPROACH

Ask students for examples of long-term assets and how their value can be changed. Define effects of the changes as positive or negative on the company's financial status.

LECTURE AID—Investing Activities

Use the Cash Flows from Investing Activities from TM 13-3 to categorize the assets as investments in yourself or others. Discuss the effect of depreciation on investments.

OBJECTIVE 4

Prepare the cash flows from financing activities section of the statement of cash flows.

SYNOPSIS

Financing activities are cash inflows and outflows related to a company's long-term liabilities and equities. It includes activities that obtain and repay funds used to finance a company's operations.

Relevant Check Up Corner

- Check Up Corner 13-4 – Cash Flows from Financing Activities

SUGGESTED APPROACH

Ask students for examples of financing activities. Define the effects of the activities on the company's financial status.

LECTURE AID—Financing Activities

Use the Cash Flows from Financing Activities from TM 13-4 to categorize the activities as equity financing or debt financing. Discuss the effect of the financing activities.

OBJECTIVE 5

Prepare a statement of cash flows.

SYNOPSIS

In this section, the pieces come together in a complete statement of cash flows.

Relevant Exhibit

- Exhibit 7 – Statement of Cash Flows—Indirect Method

SUGGESTED APPROACH

Use Exhibit 7 to demonstrate the layout of a finished statement of cash flows.

Optional discussion: *International Financial Reporting Standards (IFRSs)*. The statement of cash flows is required under IFRSs and is similar to that required by GAAP. While there are differences, they are minor in nature. For more information, consult page 623 of the text.

ADM OBJECTIVE

Describe and illustrate the use of free cash flow in evaluating a company's cash flow.

SYNOPSIS

Free cash flow measures the operating cash flow available to a company to use after purchasing the property, plant, and equipment necessary to maintain current productive capacity. It is also used to measure the financial strength of a company. Calculate free cash flow as: cash flow from operating activities – investments in PP&E needed to maintain current production = free cash flow. Positive free cash flow is considered favorable. The company will be able to fund growth, retire debt, pay dividends, and have financial flexibility.

Key Term and Definition

- **Free Cash Flow** - The amount of operating cash flow remaining after replacing current productive capacity and maintain current dividends.

SUGGESTED APPROACH

After explaining the concept of free cash flow, use the Make a Decision activity to demonstrate the free cash flow calculation.

APPENDIX 1: SPREADSHEET (WORK SHEET) FOR STATEMENT OF CASH FLOWS—THE INDIRECT METHOD

SYNOPSIS

The appendix explains how to use a worksheet to create a statement of cash flows using the indirect method. Using Exhibit 8, follow the seven steps to create the worksheet that will display all the information needed to make a cash flow statement.

Relevant Exhibit

- Exhibit 8 – End-of-Period Spreadsheet (Work Sheet) for Statement of Cash Flows—Indirect Method

SUGGESTED APPROACH

A spreadsheet (work sheet) is a tool that can be used to gather data for preparing a statement of cash flows.

The spreadsheet also lends itself to an in-class demonstration. Choose one of the cash flow problems at the end of the text (such as Problem 13-1A or 13-1B), and ask your students to bring the working papers for that problem to class. The working papers include a cash flow spreadsheet. Demonstrate completion of that spreadsheet using the steps outlined in the chapter appendix.

Emphasize that entries recorded on a cash flow spreadsheet are not recorded as journal entries or posted to the ledger. These entries are made to analyze past transactions and provide data for preparing a statement of cash flows.

APPENDIX 2: PREPARING THE STATEMENT OF CASH FLOWS—THE DIRECT METHOD

SYNOPSIS

Because the two methods are the same for the Investing and Financing sections, only the Operating Activities section is calculated differently. The direct operating section starts with cash received from customers. To determine this number, add the decrease in accounts receivable or subtract the increase in accounts receivable from sales. These steps are shown in Exhibit 9. Next, determine the cash paid for merchandise by subtracting or adding the differences in inventories and accounts payable from the cost of goods sold reported on the income statement; these steps are found in Exhibit 11. Determine the cash paid for operating expenses by subtracting or adding the differences in expenses payable from the operating expenses (other than depreciation) reported on the income statement; these steps are found in Exhibit 12. The format for the cash flows statement in the direct method is shown in its entirety in Exhibit 15.

Relevant Exhibits

- Exhibit 9 – Converting Income Statement to Cash Flows from Operating Activities Using the Direct Method
- Exhibit 10 – Determining the Cash Received from Customers
- Exhibit 11 – Determining the Cash Payments for Merchandise
- Exhibit 12 – Determining the Cash Payments for Operating Expenses
- Exhibit 13 – Determining the Cash Payments for Interest
- Exhibit 14 – Determining the Cash Payments for Income Taxes
- Exhibit 15 – Statement of Cash Flows—Direct Method

SUGGESTED APPROACH

The direct method of preparing a statement of cash flows is another topic that can be presented effectively through a Demonstration Problem. If you have already covered the indirect method, you need only to illustrate the Operating Activities section.

Prior to beginning the Demonstration Problem, stress that the Operating Activities section is the only portion of the statement of cash flows that varies between the direct and indirect methods. The direct and indirect methods will report the same amount of net cash flows from operating activities, but the information is presented in a different format.

When a company chooses to prepare the direct statement of cash flows, it must present the reconciliation of net income to net cash flows from operating activities (the heart of the indirect method) in a supporting schedule. Thus, preparing a direct statement of cash flows obligates a company to prepare the Operating Activities section under both methods. So, most companies use the indirect method.

DEMONSTRATION PROBLEM—Preparation of a Statement of Cash Flows: Direct Method

The direct method presents the major classes of cash receipts and payments from operating activities. To prepare a direct statement of cash flows, an income statement is needed in addition to comparative balance sheets. Problems 13-5A and 13-5B repeat the information presented in Problems 13-1A and 13-1B, plus give an income statement.

When completing a direct statement of cash flows, ask your students to complete the same preparatory steps discussed in Objective 2—computing changes in account balances and coding accounts with an O, I, or F (for operating, investing, or financing). The check-off method described previously is also appropriate when preparing a direct statement of cash flows.

TM 13-8 presents the major classes of cash receipts and payments that are typically identified in a direct statement. The TM also presents formulas for computing each cash flow item. In reality, the formulas on TM 13-8 are a shortcut approach. Students usually need a complete explanation of the calculations for cash received from customers and cash paid for purchases in order to understand these shortcuts.

Under the direct method, you must determine the cash collected from customers. The sales reported on the income statement do not represent cash collections for two reasons: (1) The sales figure includes credit sales that have not been collected and (2) the sales figure does not include collections on last year's credit sales made during the current year. Therefore, sales must be adjusted. Again, discourage your students from trying to memorize rules on whether to add or subtract changes in accounts receivable. Give them a methodology to think through the changes.

The methodology presented under Objective 2 will also work in the direct method. The calculation could be explained as follows:

Accounts receivable increased, so the company is selling more on credit and selling less for cash. Therefore, the effect on cash receipts is negative.

Or:

Accounts receivable increased, indicating that credit sales on account were more than cash collections. Therefore, the increase must be subtracted from sales to get cash receipts.

Under the direct method, you must also determine the cash paid for purchases. Before you can determine cash paid for purchases, you must know the cost of merchandise purchased. The income statement in Problem 13-5A does not show the detailed calculation of cost of goods sold; therefore, the cost of merchandise purchased cannot be determined just by looking at the income statement. However, it can be determined as follows:

	Beginning Inventory
+	Cost of Merchandise Purchased
–	Ending Inventory
	Cost of Goods Sold

Therefore,

	Cost of Goods Sold
–	Beginning Inventory
+	Ending Inventory
	Cost of Merchandise Purchased

The cost of merchandise purchased must be adjusted to determine cash payments for purchase:

	Cost of merchandise purchased	$ XXX
–	Credit purchases not yet paid for (ending balance of accounts payable)	(XXX)
+	Payments on last year's credit purchases (beginning balance of accounts payable)	XXX
		$ XXX

Or (combining both of these calculations into one formula):

	Cost of goods sold	$ XXX
+	Change in inventories	XXX
–	Change in accounts payable	(XXX)
	Cash payments for purchases	$ XXX

Explain that the increase in inventories can be interpreted as increasing cash payments because more inventory was purchased. The increase in accounts payable can be interpreted as decreasing cash payments because the company made more purchases on account.

Continue with the problem, demonstrating the calculations of cash paid for operating expenses and cash paid for income taxes. When you have completed the Operating Activities section, remind students that the net cash flow is the same number as computed under the indirect method.

Type	Item	Description	LO(s)	Difficulty	Time Est	BUSPROG	AICPA	ACBSP - Primary	Bloom's	Video	Excel	CLGL	ADM	Real World	Writing	Ethics
MC	1		1	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Remembering							
MC	2		1	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Remembering							
MC	3		1	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Remembering							
MC	4		1	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Remembering							
MC	5		2	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying							
LREX	1	Classifying cash flows	1	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying	x						
LREX	2	Adjustments to net income - indirect method	2	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying	x						
LREX	3	Changes in current operating assets and liabilities - indirect method	2	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying	x						
LREX	4	Cash flows from operating activities - indirect method	2	Easy	10 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying	x						
LREX	5	Land transactions on the statement of cash flows	3	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying	x						
LREX	6	Common stock transactions on the statement of cash flows	4	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying	x						
PP		Problem	n/a	Challenging	1.5 hour	Analytic	FN - Measurement	Statement of Cash Flows	Applying							
DQ	1		n/a	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Remembering							
DQ	2		n/a	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Remembering							
DQ	3		n/a	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying							
DQ	4		n/a	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying							
DQ	5		n/a	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying							
DQ	6		n/a	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying							
DQ	7		n/a	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying							
DQ	8		n/a	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying							
DQ	9		n/a	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Analyzing							
DQ	10		n/a	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Remembering							
BE	1	Classifying cash flows	1	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Remembering	x						
BE	2	Adjustments to net income - indirect method	2	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying	x						
BE	3	Changes in current operating assets and liabilities - indirect method	2	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying	x						
BE	4	Cash flows from operating activities - indirect method	2	Easy	10 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying	x						
BE	5	Land transactions on the statement of cash flows	3	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying	x						
BE	6	Common stock transactions on the statement of cash flows	4	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying	x						
BE	7	Cash received from customers - direct method	Appendix 2	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Analyzing	x						
BE	8	Cash payments for merchandise - direct method	Appendix 2	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Analyzing	x						
EX	1	Cash flows from operating activities - net loss	1	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying					x	x	
EX	2	Effects of transactions on cash flows	1	Easy	10 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying							
EX	3	Classifying cash flows	1	Easy	10 min.	Analytic	FN - Measurement	Statement of Cash Flows	Remembering							
EX	4	Cash flows from operating activities - indirect method	2	Easy	10 min.	Analytic	FN - Measurement	Statement of Cash Flows	Remembering							
EX	5	Cash flows from operating activities - indirect method	1,2	Easy	10 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying	x					x	
EX	6	Cash flows from operating activities - indirect method	1,2	Easy	10 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying	x					x	
EX	7	Cash flows from operating activities - indirect method	1,2	Easy	10 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying	x					x	
EX	8	Reporting changes in equipment on statement of cash flows	3	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying							
EX	9	Reporting changes in equipment on statement of cash flows	3	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying							
EX	10	Reporting land transactions on statement of cash flows	3	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying							
EX	11	Determining cash payments to stockholders	4	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying	x						
EX	12	Reporting stockholders' equity items on statement of cash flows	4	Moderate	10 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying							
EX	13	Reporting land acquisition for cash and mortgage note on statement of cash flows	3,4	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying							
EX	14	Reporting issuance and retirement of long-term debt	4	Moderate	10 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying							
EX	15	Determining net income from net cash flow from operating activities	2,3,4	Moderate	10 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying	x					x	
EX	16	Cash flows from operating activities - indirect method	2	Moderate	15 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying		x			x	x	
EX	17	Statement of cash flows - indirect method	2,3,4,5	Moderate	20 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying	x	x				x	
EX	18	Statement of cash flows - indirect method	2,3,4,5	Moderate	15 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying							
EX	19	Cash flows from operating activities - direct method	Appendix 2	Easy	5 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying						x	
EX	20	Determining selected amounts for cash flows from operating activities - direct method	Appendix 2	Easy	10 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying							
EX	21	Cash flows from operating activities - direct method	Appendix 2	Moderate	15 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying						x	
EX	22	Cash flows from operating activities - direct method	Appendix 2	Moderate	15 min.	Analytic	FN - Measurement	Statement of Cash Flows	Applying							
PR	1A	Statement of cash flows - indirect method	2,3,4,5	Moderate	1.5 hours	Analytic	FN - Measurement	Statement of Cash Flows	Applying	x	x					
PR	2A	Statement of cash flows - indirect method	2,3,4,5	Moderate	1.5 hours	Analytic	FN - Measurement	Statement of Cash Flows	Applying	x	x					
PR	3A	Statement of cash flows - indirect method	2,3,4,5	Moderate	1.5 hours	Analytic	FN - Measurement	Statement of Cash Flows	Applying		x					
PR	4A	Statement of cash flows - direct method	Appendix 2	Moderate	1.5 hours	Analytic	FN - Measurement	Statement of Cash Flows	Applying	x	x	x				
PR	5A	Statement of cash flows - direct method	Appendix 2	Moderate	1.5 hours	Analytic	FN - Measurement	Statement of Cash Flows	Applying		x					
PR	1B	Statement of cash flows - indirect method	2,3,4,5	Moderate	1.5 hours	Analytic	FN - Measurement	Statement of Cash Flows	Applying	x	x					
PR	2B	Statement of cash flows - indirect method	2,3,4,5	Moderate	1.5 hours	Analytic	FN - Measurement	Statement of Cash Flows	Applying	x	x					

			Tagging							Associated Assets			Focus			
Type	Item	Description	LO(s)	Difficulty	Time Est	BUSPROG	AICPA	ACBSP - Primary	Bloom's	Video	Excel	CLGL	ADM	Real World	Writing	Ethics
PR	3B	Statement of cash flows - indirect method	2,3,4,5	Moderate	1.5 hours	Analytic	FN - Measurement	Statement of Cash Flows	Applying		x					
PR	4B	Statement of cash flows - direct method	Appendix 2	Moderate	1.5 hours	Analytic	FN - Measurement	Statement of Cash Flows	Applying	x	x	x				
PR	5B	Statement of cash flows - direct method	Appendix 2	Moderate	1.5 hours	Analytic	FN - Measurement	Statement of Cash Flows	Applying		x					
ADM	1	Continuing Company Analysis - Amazon, Best Buy, and Walmart: Free cash flow	ADM	Challenging	45 min.	Analytic	FN - Measurement	Financial Statement Analysis	Evaluating				x	x	x	
ADM	2	RadioShack: Free cash flow	ADM	Challenging	45 min.	Analytic	FN - Measurement	Financial Statement Analysis	Evaluating				x	x	x	
ADM	3	AT&T and Facebook: Free cash flow	ADM	Challenging	1 hour	Analytic	FN - Measurement	Financial Statement Analysis	Evaluating				x	x	x	
ADM	4	Priceline: Free cash flow	ADM	Challenging	1 hour	Analytic	FN - Measurement	Financial Statement Analysis	Evaluating				x	x	x	
TIF	1	Ethics in action	n/a	Challenging	35 min.	Ethics	FN - Measurement	Statement of Cash Flows	Evaluating						x	x
TIF	2	Team Activity	n/a	Challenging	1 hour	Analytic	FN - Measurement	Statement of Cash Flows	Evaluating					x	x	
TIF	3	Communication	n/a	Challenging	1 hour	Analytic	FN - Measurement	Statement of Cash Flows	Evaluating						x	

EXERCISE 2-1

A. _____

B. _____

C. _____

D. _____

E. _____

EXERCISE 2-2

A. Cost of goods sold:

B. Direct materials cost:

C. Direct labor cost:

EXERCISE 2-3

A.

RECEIVED			ISSUED			BALANCE			
Receiving Report Number	Quantity	Unit Price	Materials Requisition Number	Quantity	Amount	Date	Quantity	Unit Price	Amount
						May 1	285	$30.00	$8,550
40	130	$32.00				May 4			
			91	365		May 10			
44	110	38.00				May 21			
			97	100		May 27			

B. _____

_____

C.

JOURNAL PAGE

	DATE		DESCRIPTION	POST. REF.	DEBIT	CREDIT	
1							1
2							2
3							3
4							4

D. _____

EXERCISE 2-4

JOURNAL PAGE

	DATE	DESCRIPTION	POST. REF.	DEBIT	CREDIT	
1						1
2						2
3						3
4						4

EXERCISE 2-5

A. and B.

JOURNAL PAGE

	DATE	DESCRIPTION	POST. REF.	DEBIT	CREDIT	
1						1
2						2
3						3
4						4
5						5
6						6
7						7
8						8
9						9
10						10

C.

	Fabric	Polyester Filling	Lumber	Glue

EXERCISE 2-6

JOURNAL PAGE

	DATE	DESCRIPTION	POST. REF.	DEBIT	CREDIT	
1						1
2						2
3						3
4						4

EXERCISE 2-7

A.

JOURNAL PAGE

	DATE		DESCRIPTION	POST. REF.	DEBIT	CREDIT	
1							1
2							2
3							3
4							4

Supporting calculations:

B. _____

EXERCISE 2-8

A. and B.

JOURNAL PAGE

	DATE		DESCRIPTION	POST. REF.	DEBIT	CREDIT	
1							1
2							2
3							3
4							4
5							5
6							6
7							7
8							8
9							9
10							10

EXERCISE 2-9

A. Factory 1 overhead rate: _____

B. Factory 2 overhead rate: _____

C.

JOURNAL PAGE

	DATE		DESCRIPTION	POST. REF.	DEBIT	CREDIT	
1							1
2							2
3							3
4							4
5							5
6							6
7							7
8							8
9							9

D. Balance of Factory 1 accounts as of March 31: _____

Balance of Factory 2 accounts as of March 31: _____

EXERCISE 2-10

EXERCISE 2-11

A. _____

B. _____

C.

EXERCISE 2-12

A.

JOURNAL PAGE

	DATE		DESCRIPTION	POST. REF.	DEBIT	CREDIT	
1							1
2							2
3							3
4							4

B.

EXERCISE 2-13

A. through D.

JOURNAL PAGE

	DATE	DESCRIPTION	POST. REF.	DEBIT	CREDIT	
1						1
2						2
3						3
4						4
5						5
6						6
7						7
8						8
9						9
10						10
11						11
12						12
13						13
14						14
15						15
16						16
17						17
18						18
19						19
20						20
21						21
22						22
23						23
24						24
25						25
26						26
27						27
28						28

EXERCISE 2-14

A.

Income Statement

B. Materials inventory:

Work in process inventory:

Finished goods inventory:

EXERCISE 2-15

A.

JOURNAL PAGE

	DATE	DESCRIPTION	POST. REF.	DEBIT	CREDIT	
1						1
2						2
3						3
4						4
5						5
6						6
7						7
8						8
9						9
10						10
11						11
12						12
13						13
14						14
15						15
16						16
17						17
18						18
19						19
20						20
21						21
22						22
23						23
24						24
25						25
26						26
27						27
28						28
29						29
30						30
31						31
32						32
33						33
34						34
35						35

EXERCISE 2-15, Concluded

B.

C.

EXERCISE 2-16

A. through D.

JOURNAL PAGE

	DATE		DESCRIPTION	POST. REF.	DEBIT	CREDIT	
1							1
2							2
3							3
4							4
5							5
6							6
7							7
8							8
9							9
10							10
11							11
12							12
13							13
14							14

Supporting calculations:

This Page Not Used.

PROBLEM 2-1 ___

A. through I.

JOURNAL PAGE

	DATE		DESCRIPTION	POST. REF.	DEBIT	CREDIT	
1							1
2							2
3							3
4							4
5							5
6							6
7							7
8							8
9							9
10							10
11							11
12							12
13							13
14							14
15							15
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19							19
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21							21
22							22
23							23
24							24
25							25
26							26
27							27
28							28
29							29
30							30
31							31
32							32
33							33
34							34
35							35

PROBLEM 2-1 ___, Concluded

JOURNAL PAGE

	DATE		DESCRIPTION	POST. REF.	DEBIT	CREDIT	
1							1
2							2
3							3
4							4
5							5
6							6
7							7
8							8
9							9
10							10
11							11
12							12
13							13
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24							24
25							25
26							26
27							27
28							28
29							29
30							30
31							31
32							32
33							33
34							34
35							35
36							36

PROBLEM 2-2 ___

1. A. through G.

JOURNAL PAGE

	DATE		DESCRIPTION	POST. REF.	DEBIT	CREDIT	
1							1
2							2
3							3
4							4
5							5
6							6
7							7
8							8
9							9
10							10
11							11
12							12
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27							27
28							28
29							29
30							30
31							31
32							32
33							33
34							34
35							35

PROBLEM 2-2 ___, Continued

F. Computation of cost of jobs finished:

G. Computation of cost of jobs sold:

2.

Work in Process

Finished Goods

PROBLEM 2-2 ___, Concluded

3.

Schedule of Unfinished Jobs

JOB	DIRECT MATERIALS	DIRECT LABOR	FACTORY OVERHEAD	TOTAL

4.

Schedule of Completed Jobs

JOB	DIRECT MATERIALS	DIRECT LABOR	FACTORY OVERHEAD	TOTAL

This Page Not Used.

PROBLEM 2-3 ___

1. and 2.

JOB ORDER COST SHEET

Customer _____ Date _____

Date wanted _____

Date completed _____

Job No. _____

ESTIMATE

Direct Materials		Direct Labor		Summary	
	Amount		Amount		Amount
____ meters at $_____	_____	____ hours at $_____	_____	Direct materials	_____
____ meters at _____	_____	____ hours at _____	_____	Direct labor	_____
____ meters at _____	_____	____ hours at _____	_____	Factory overhead	_____
____ meters at _____	_____	____ hours at _____	_____		
Total	_____	Total	_____	Total cost	_____

ACTUAL

Direct Materials			Direct Labor			Summary	
Mat. Req. No.	Description	Amount	Time Ticket No.	Description	Amount	Item	Amount
_____	_____	_____	_____	_____	_____	Direct materials	_____
_____	_____	_____	_____	_____	_____	Direct labor	_____
_____	_____	_____	_____	_____	_____	Factory overhead	_____
_____	_____	_____	_____	_____	_____		
Total		_____	Total		_____	Total cost	_____

Comments:

This Page Not Used.

PROBLEM 2-4 ___

1. Supporting calculations:

Job No.	Quantity	Work in Process	Direct Materials	Direct Labor	Factory Overhead	Total Cost	Unit Cost	Units Sold	Cost of Goods Sold

A. _____

_____

B. _____

C. _____

D. _____

E. _____

F. _____

G. _____

H. _____

_____

PROBLEM 2-4 ___, Concluded

2. _____

PROBLEM 2-5 ___

1.

Income Statement

Supporting calculations:

PROBLEM 2-5 ___, Concluded

2. _____

Fit &  Fashionable 

800 Coco Drive, Coconut Grove, FL 33133

CONTENTS

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- Narrative of Transactions Method 1
- Combining Methods 1
- Using Special Journals 2
- Analysis Test 2

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Fit & Fashionable

800 Coco Drive, Coconut Grove, FL 33133

INSTRUCTOR'S GUIDE

There are two options for using this practice set:

1. Business Forms
2. Narrative of Transactions

Either option or a combination of both options may be used. If you specify that only the business forms be used, you may ask students to hand in the Narrative of Transactions pages from Booklet 3 before they begin the practice set.

Business Forms Method

The Business Forms approach requires the student to analyze various business documents and decide how to enter the transactions in the journal. There are seven types of business forms:

1. Vendor Invoices for Purchases
2. Sales Invoices
3. Credit Memos
4. Checks from Customers
5. Interoffice Memos
6. Bank Deposit Slips
7. Checkbook

The documents are presented in Booklet 3 in order of occurrence, numbered 1 through 61. Some documents have accompanying notes to assist the student in analyzing how to record the transactions.

Narrative of Transactions Method

Using the Narrative of Transactions approach requires the student to enter each business transaction using the same method as the problems presented in the text. Each transaction is listed in order by date with all necessary information given in narrative form. The student analyzes the information given in each transaction and enters it in the appropriate journal.

Combining Methods

Since there are advantages to both methods, using both may be desirable. In this approach, students could use the business forms as the primary source of information and use the Narrative of Transactions to support the accuracy of their entries. This would allow students to experience the paper flow of a business and provide some assurance that entries contain the appropriate amounts.

Using Special Journals

This practice set utilizes special journals to record the daily transactions of the business. The journals are similar to those presented in the special journals online appendix to the text; however, they contain additional columns to accommodate entries for a merchandising operation, such as *Cost of Goods Sold* and *Inventory*. There are five types of journals contained in the practice set:

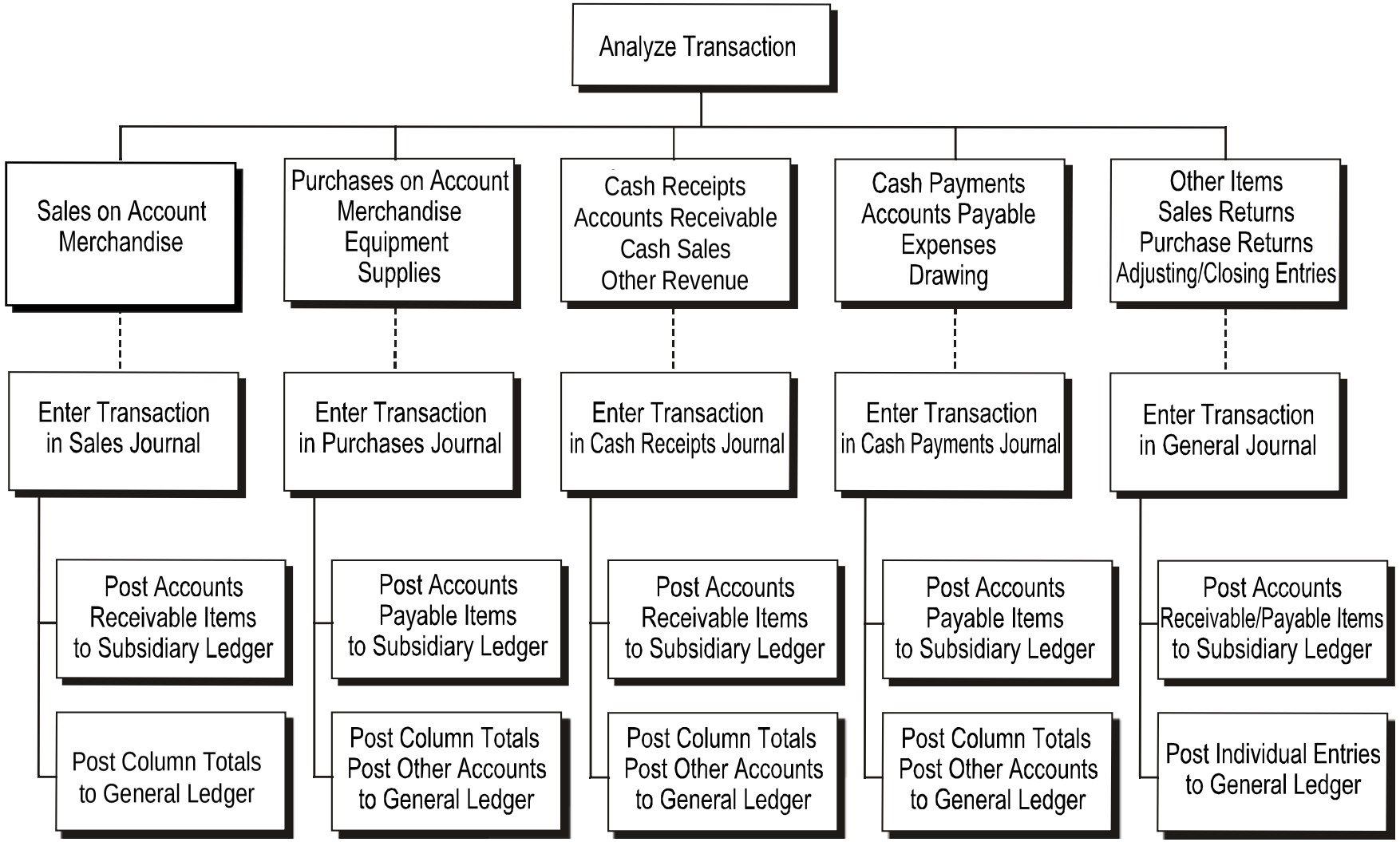
1. Revenue Journal (also called a Sales Journal)
2. Purchases Journal
3. Cash Payments Journal
4. Cash Receipts Journal
5. General (two-column) Journal

Pages 3 through 7 of this guide provide diagrams of the overall process of using these journals in a merchandising enterprise. Pages 4 through 7 diagram each type of special journal. These can be made into transparencies, if desired, and used to help guide the students through the various types of transactions contained in the set.

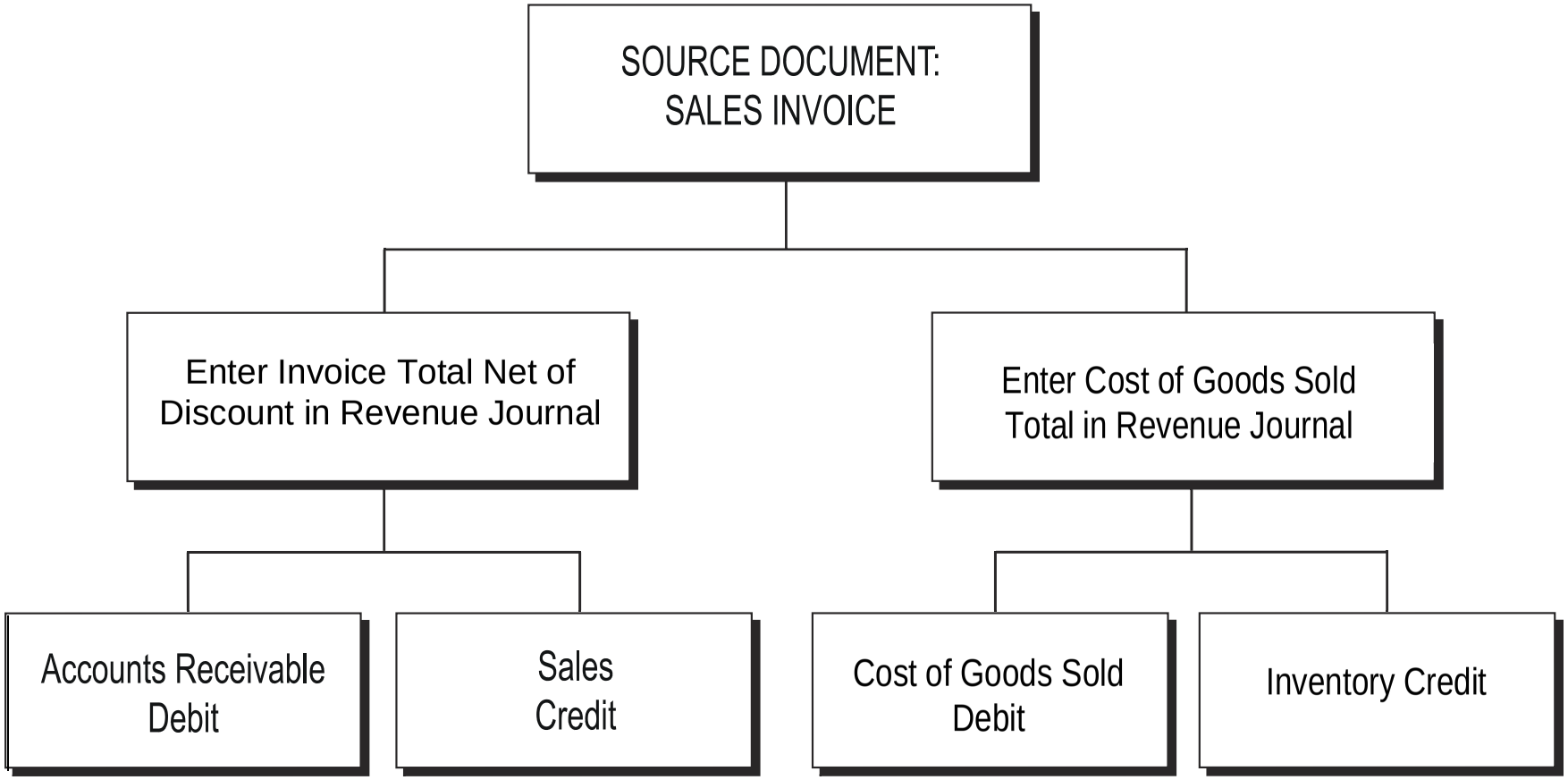
Analysis Test

A form for recording amounts in the practice set is also included on page 9 of this guide. This form may be copied and distributed to students, and you may instruct students to hand in a completed form with their completed set.

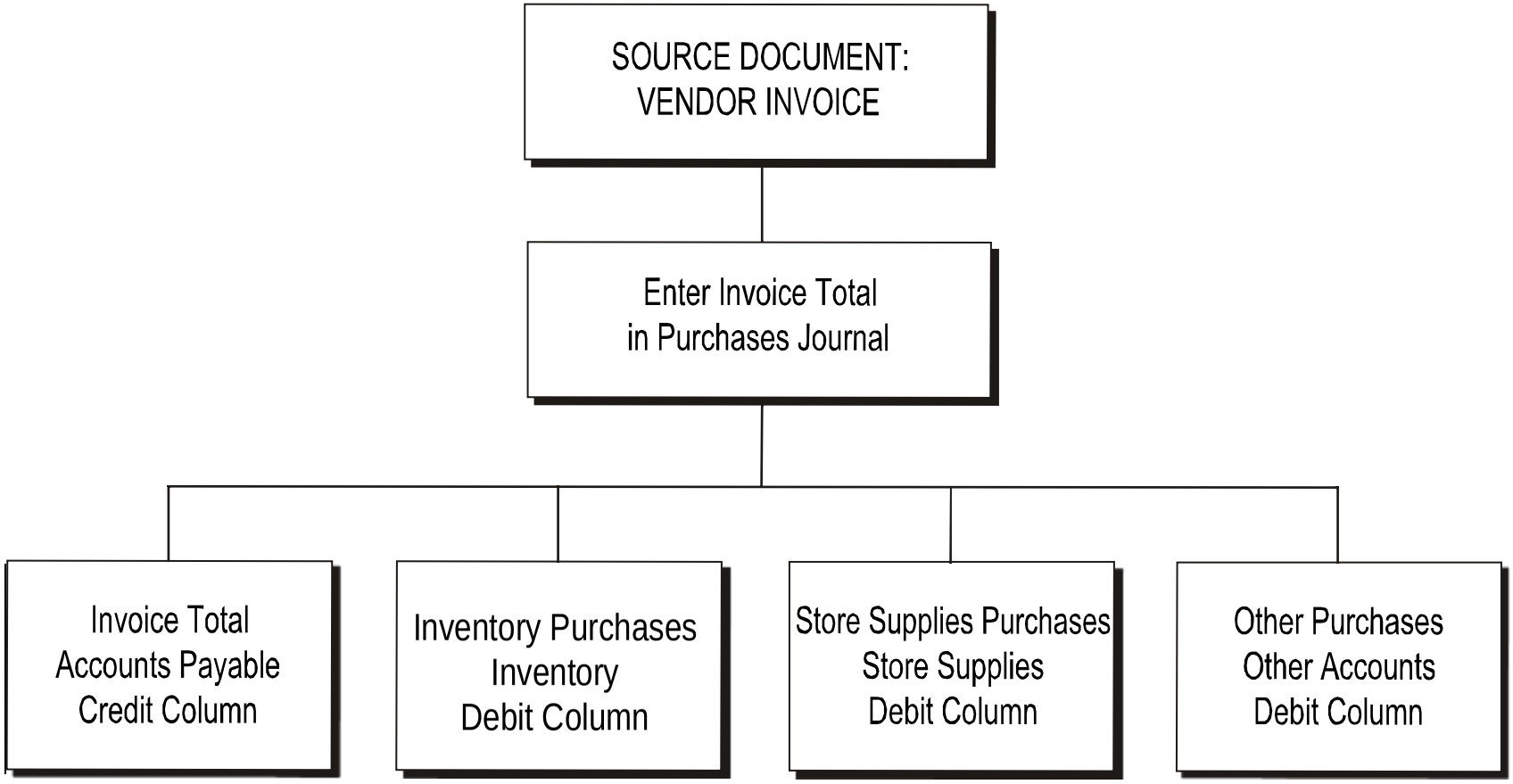
SPECIAL JOURNALS IN MERCHANDISING OPERATIONS



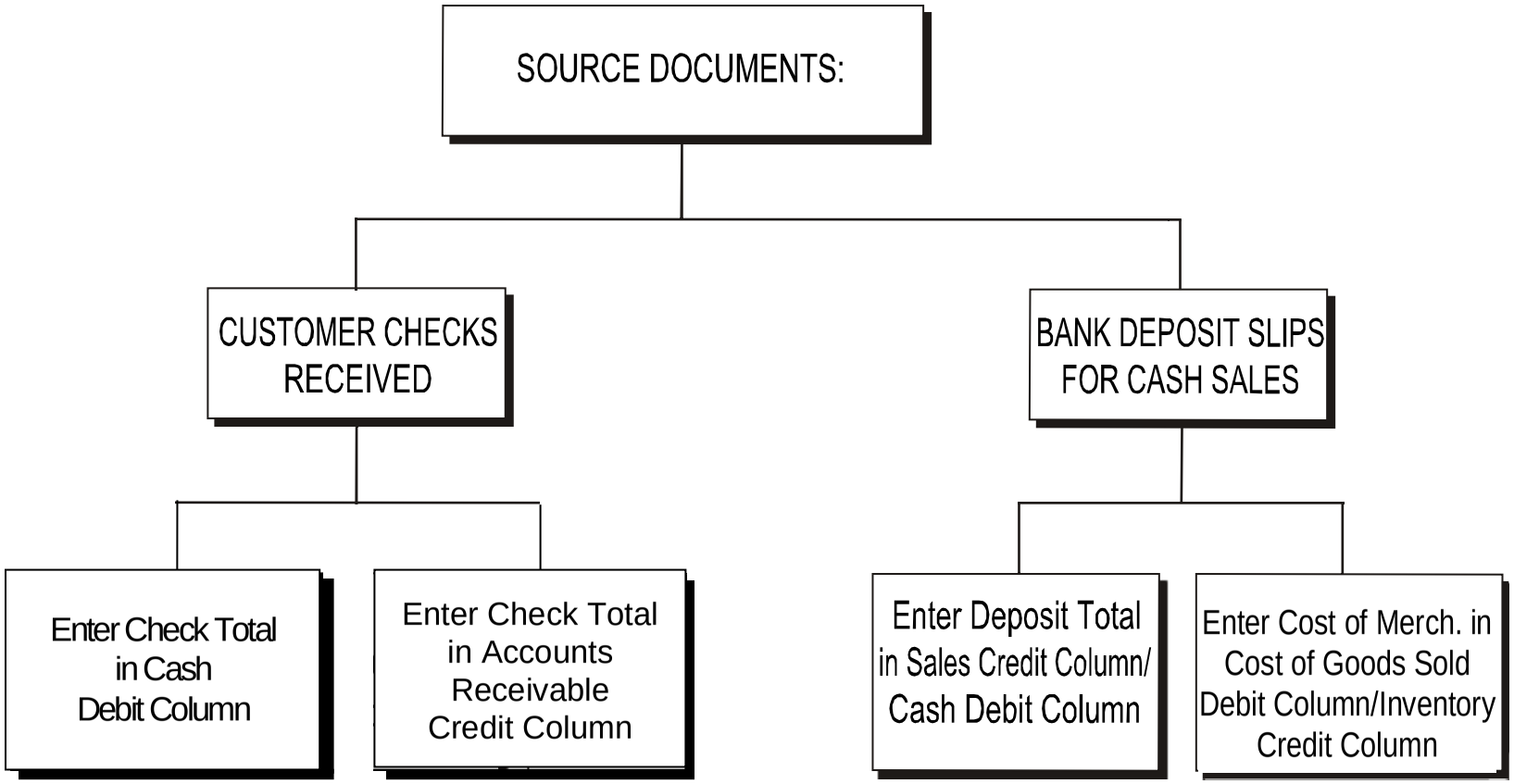
Revenue Journal



Purchases Journal



Cash Receipts Journal



Fit & Fashionable

ANALYSIS TEST

	Journals	
1.	Total Merchandise Purchases during April	$
2.	Total Cash Sales during April	$
3.	Total Sales on Account for April	$
4.	Total Accounts Payable Credits during April	$
	Accounts Receivable Ledger	
5.	All Access Fitness Center Balance on April 30	$
6.	Miami Health Club Balance on April 30	$
	Accounts Payable Ledger	
7.	Alexus Fitness Connection Balance on April 30	$
8.	Sports Magic Warehouse Balance on April 30	$
	Income Statement	
9.	Sales	$
10.	Cost of Goods Sold	$
11.	Gross Profit	$
12.	Total Operating Expenses	$
13.	Net Income	$
	Statement of Owner's Equity	
14.	Change in Owner's Equity	$
15.	Ending Balance of Owner's Equity, April 30	$
	Balance Sheet	
16.	Total Current Assets	$
17.	Total Property, Plant, and Equipment	$
18.	Total Current Liabilities	$
	Adjustments	
19.	Adjustment to Office Supplies	$
20.	Adjustment to Prepaid Insurance	$
21.	Adjustment to Unearned Rent	$
22.	Adjustment for Inventory Shrinkage	$
	Closing	
23.	Amount Closed to Capital from Income Summary	$
24.	Post-Closing Trial Balance Total	$
25.	Amount Closed from Drawing to Capital	$

SOLUTIONS

REVENUE JOURNAL

PAGE 2

	DATE		INV. NO.	ACCOUNT DEBITED	POST. REF.	ACCOUNTS RECEIVABLE DEBIT / SALES CREDIT	COST OF GOODS SOLD DEBIT / INVENTORY CREDIT	
1	20Y8							1
2	April	1	301	Miami Health Club	✓	5,301.60	3,864.00	2
3		3	302	All Access Fitness Center	✓	9,364.29	6,825.00	3
4		5	303	Westwood Boxing Gym	✓	27,306.48	19,903.68	4
5		8	304	The Sun Set Recreation Center	✓	21,756.88	15,858.00	5
6		10	305	Rockdale Gym	✓	13,373.86	9,412.00	6
7		16	306	Miami Health Club	✓	5,649.80	4,115.20	7
8		23	307	All Access Fitness Center	✓	13,770.64	10,040.00	8
9		25	308	Cory's Gym in the Grove	✓	5,186.36	3,780.00	9
10		26	309	Body Excellence Fitness Club	✓	3,789.17	2,640.00	10
11		30				105,499.08	76,437.88	11
12						(1112) (4100)	(5100) (1114)	12

PURCHASES JOURNAL

PAGE 2

	DATE		ACCOUNT CREDITED	POST. REF.	ACCOUNTS PAYABLE CREDIT	INVENTORY DEBIT	STORE SUPPLIES DEBIT	OTHER ACCOUNTS DEBIT			
								ACCOUNT DEBITED	POST. REF.	AMOUNT	
1	20Y8										1
2	April	1	Alexus Fitness Corporation	✓	13,865.00	13,865.00					2
3		5	Sports Magic Warehouse	✓	49,519.75	49,519.75					3
4		8	Fit & Fab Health Products	✓	5,125.40	5,125.40					4
5		9	Fizzy-Cal Network	✓	11,400.00	9,600.00	1,800.00				5
6		16	Alexus Fitness Corporation	✓	10,105.00	9,180.00	250.00	Miscellaneous Selling Expense	5290	675	6
7		17	Sports Magic Warehouse	✓	16,900.00	16,900.00					7
8		20	Fizzy-Cal Network	✓	5,350.00	5,125.00	225.00				8
9		22	HeartFit Enterprises	✓	3,400.00	3,400.00					9
10		22	Fizzy-Cal Network	✓	10,800.00	10,800.00					10
11		24	Sports Magic Warehouse	✓	2,400.00	2,400.00					11
12		30			128,865.15	125,915.15	2,275.00			675.00	12
13					(2100)	(1115)	(1117)			(✓)	13

CASH RECEIPTS JOURNAL

PAGE 2

	DATE		ACCOUNT	POST. REF.	OTHER ACCOUNTS CREDIT	COST OF GOODS SOLD DEBIT / INVENTORY CREDIT	SALES CREDIT	ACCOUNTS RECEIVABLE CREDIT	CASH DEBIT	
1	20Y8									1
2	April	2	Body Excellence Fitness Club	✓				14,406.00	14,406.00	2
3		3	Cory's Gym in the Grove	✓				12,348.00	12,348.00	3
4		4	The Sun Set Recreation Center	✓				6,174.00	6,174.00	4
5		6	Cash Sales	✓		18,024.00	26,600.00		26,600.00	5
6		8	Westwood Boxing Gym	✓				8,232.00	8,232.00	6
7		8	Pine Bay Fitness Club	✓				10,976.00	10,976.00	7
8		11	Store Supplies	1117	300.00				300.00	8
9		11	Miami Health Club	✓				5,301.60	5,301.60	9
10		12	All Access Fitness Center	✓				9,364.29	9,364.29	10
11		13	Cash Sales	✓		24,910.80	36,120.00		36,120.00	11
12		15	Westwood Boxing Gym	✓				27,306.48	27,306.48	12
13		18	The Sun Set Recreation Center	✓				20,933.68	20,933.68	13
14		19	Rockdale Gym	✓				13,373.86	13,373.86	14
15		20	Cash Sales	✓		19,292.80	27,020.00		27,020.00	15
16		30	Notes Receivable	1111	3,000.00				3,060.00	16
17			Interest Revenue	6100	60.00					17
18		30	Cash Sales	✓		19,099.20	28,280.00		28,280.00	18
19		30			3,360.00	81,326.80	118,020.00	128,415.91	249,795.91	19
20					(✓)	(1114) (5100)	(4100)	(1112)	(1110)	20

CASH PAYMENTS JOURNAL

PAGE 2

	DATE		CK. NO.	ACCOUNT DEBITED	POST. REF.	OTHER ACCOUNTS DEBIT	ACCOUNTS PAYABLE DEBIT	CASH CREDIT	
1	20Y8								1
2	April	1	2201	Alexus Fitness Connection	✓		14,268.80	14,268.80	2
3		2	2202	Prepaid Insurance	1118	5,700.00		5,700.00	3
4		3	2203	Fizzy-Cal Network	✓		46,480.00	46,480.00	4
5		4	2204	HeartFit Enterprises	✓		14,000.00	14,000.00	5
6		10	2205	Miscellaneous Selling Expense	5290	175.00		175.00	6
7		13	2206	Sales Salaries Expense	5200	8,000.00			7
8				Office Salaries Expense	5300	5,000.00		13,000.00	8
9		17	2207	Marty Chavez, Drawing	3110	4,200.00		4,200.00	9
10		17	2208	Advertising Expense	5210	441.00		441.00	10
11		18	2209	Fit & Fab Health Products	✓		4,267.90	4,267.90	11
12		18	2210	Muscles R_x Distributors	✓		53,200.00	53,200.00	12
13		18	2211	Advertising Expense	5210	185.00		185.00	13
14		20	2212	Miscellaneous Selling Expense	5290	231.00		231.00	14
15		24	2213	Miscellaneous Administrative Expense	5390	287.00		287.00	15
16		26	2214	Sales Salaries Expense	5200	8,000.00			16
17				Office Salaries Expense	5300	5,000.00		13,000.00	17
18		27	2215	Miscellaneous Administrative Expense	5390	340.00		340.00	18
19		27	2216	Alexus Fitness Connection	✓		13,865.00	13,865.00	19
20		27	2217	Marty Chavez, Drawing	3110	2,500.00		2,500.00	20
21		29	2218	Miscellaneous Administrative Expense	5390	204.00			21
22				Miscellaneous Selling Expense	5290	408.00		612.00	22
23		29	2219	Miscellaneous Administrative Expense	5390	360.00		360.00	23
24		30	2220	Interest Expense	7100	700.00		700.00	24
25		30				41,731.00	146,081.70	187,812.70	25
26						(✓)	(2100)	(1110)	26

GENERAL JOURNAL

PAGE 5

	DATE		DESCRIPTION	POST. REF.	DEBIT	CREDIT	
1	20Y8						1
2	April	9	Customer Refunds Payable	2120	823.20		2
3			Accounts Rec./The Sun Set Rec. Center	1112/✓		823.20	3
4							4
5		9	Inventory	1114	600.00		5
6			Estimated Returns Inventory	1115		600.00	6
7							7
8		11	Accounts Payable/Fit & Fab Health Products	2100/✓	857.50		8
9			Inventory	1114		857.50	9
10							10
11		19	Customer Refunds Payable	2120	416.50		11
12			Accounts Receivable/Miami Health Club	1112/✓		416.50	12
13							13
14		19	Inventory	1114	304.00		14
15			Estimated Returns Inventory	1115		304.00	15
16							16
17		25	Accounts Payable/HeartFit Enterprises	2100/✓	400.00		17
18			Inventory	1114		400.00	18

GENERAL JOURNAL

PAGE 6

	DATE		DESCRIPTION	POST. REF.	DEBIT	CREDIT	
1	20Y8		**Adjusting Entries**				1
2	April	30	Cost of Goods Sold	5100	142.22		2
3			Inventory	1114		142.22	3
4							4
5		30	Office Supplies Expense	5340	500.00		5
6			Office Supplies	1116		500.00	6
7							7
8		30	Store Supplies Expense	5220	650.00		8
9			Store Supplies	1117		650.00	9
10							10
11		30	Insurance Expense	5330	475.00		11
12			Prepaid Insurance	1118		475.00	12
13							13
14		30	Depreciation Expense—Equipment	5320	1,250.00		14
15			Accumulated Depreciation—Equipment	1125		1,250.00	15
16							16
17		30	Depreciation Expense—Building	5350	2,475.00		17
18			Accumulated Depreciation—Building	1123		2,475.00	18
19							19
20		30	Interest Receivable	1113	30.00		20
21			Interest Revenue	6100		30.00	21
22							22
23		30	Sales Salaries Expense	5200	1,200.00		23
24			Office Salaries Expense	5300	500.00		24
25			Salaries Payable	2110		1,700.00	25
26							26
27		30	Sales	4100	4,470.00		27
28			Customer Refunds Payable	2120		4,470.00	28
29							29
30		30	Estimated Returns Inventory	1115	3,190.00		30
31			Cost of Goods Sold	5100		3,190.00	31
32							32
33							33
34							34
35							35

GENERAL JOURNAL

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	DATE		DESCRIPTION	POST. REF.	DEBIT	CREDIT	
1	20Y8		**Closing Entries**				1
2	Apr.	30	Sales	4100	219,049.08		2
3			Interest Revenue	6100	90.00		3
4			Income Summary	3120		219,139.08	4
5							5
6		30	Income Summary	3120	191,772.90		6
7			Cost of Goods Sold	5100		154,716.90	7
8			Sales Salaries Expense	5200		17,200.00	8
9			Advertising Expense	5210		626.00	9
10			Store Supplies Expense	5220		650.00	10
11			Miscellaneous Selling Expense	5290		1,489.00	11
12			Office Salaries Expense	5300		10,500.00	12
13			Depreciation Expense—Equipment	5320		1,250.00	13
14			Insurance Expense	5330		475.00	14
15			Office Supplies Expense	5340		500.00	15
16			Depreciation Expense—Building	5350		2,475.00	16
17			Miscellaneous Administrative Expense	5390		1,191.00	17
18			Interest Expense	7100		700.00	18
19							19
20		30	Income Summary	3120	27,366.18		20
21			Marty Chavez, Capital	3100		27,366.18	21
22							22
23		30	Marty Chavez, Capital	3100	6,700.00		23
24			Marty Chavez, Drawing	3110		6,700.00	24
25							25
26							26
27							27
28							28

GENERAL LEDGER

ACCOUNT *Cash* ACCOUNT NO. *1110*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	*1*	*Balance*	✓			*84,147.80*	
	30		CR2	249,795.91		333,943.71	
	30		CP2		187,812.70	146,131.01	

ACCOUNT *Notes Receivable* ACCOUNT NO. *1111*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	*1*	*Balance*	✓			*9,800.00*	
	30		CR2		3,000.00	6,800.00	

ACCOUNT *Accounts Receivable* ACCOUNT NO. *1112*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	*1*	*Balance*	✓			*52,136.00*	
	9		J5		823.20	51,312.80	
	19		J5		416.50	50,896.30	
	30		R2	105,499.08		156,395.38	
	30		CR2		128,415.91	27,979.47	

ACCOUNT *Interest Receivable* ACCOUNT NO. *1113*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	30	Adjusting	J6	30.00		30.00	

ACCOUNT *Inventory* ACCOUNT NO. *1114*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	*1*	*Balance*	✓			*240,900.00*	
	9		J5	600.00		241,500.00	
	11		J5		857.50	240,642.50	
	19		J5	304.00		240,946.50	
	25		J5		400.00	240,546.50	
	30		R2		76,437.88	164,108.62	
	30		P2	125,915.15		290,023.77	
	30		CR2		81,326.80	208,696.97	
	30	Adjusting	J6		142.22	208,554.75	

ACCOUNT *Estimated Returns Inventory* ACCOUNT NO. *1115*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	*1*	*Balance*	✓			*2,357.00*	
	9		J5		600.00	1,757.00	
	19		J5		304.00	1,453.00	
	30	Adjusting	J6	3,190.00		4,643.00	

ACCOUNT *Office Supplies* ACCOUNT NO. *1116*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	*1*	*Balance*	✓			*2,100.00*	
	30	Adjusting	J6		500.00	1,600.00	

ACCOUNT *Store Supplies* ACCOUNT NO. *1117*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	*1*	*Balance*	✓			*1,680.00*	
	11		CR2		300.00	1,380.00	
	30		P2	2,275.00		3,655.00	
	30	Adjusting	J6		650.00	3,005.00	

ACCOUNT *Prepaid Insurance* ACCOUNT NO. *1118*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	2		CP2	5,700.00		5,700.00	
	30	Adjusting	J6		475.00	5,225.00	

ACCOUNT *Land* ACCOUNT NO. *1120*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	*1*	*Balance*	✓			*210,000.00*	

ACCOUNT *Building* ACCOUNT NO. *1122*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	*1*	*Balance*	✓			*439,000.00*	

ACCOUNT *Accumulated Depreciation—Building* ACCOUNT NO. *1123*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	*1*	*Balance*	✓				*140,200.00*
	30	Adjusting	J6		2,475.00		142,675.00

ACCOUNT *Equipment* ACCOUNT NO. *1124*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	*1*	*Balance*	✓			*98,350.00*	

ACCOUNT *Accumulated Depreciation—Equipment* ACCOUNT NO. *1125*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	*1*	*Balance*	✓				*34,540.00*
	30	Adjusting	J6		1,250.00		35,790.00

ACCOUNT *Accounts Payable* ACCOUNT NO. *2100*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	*1*	*Balance*	✓				*127,948.80*
	11		J5	857.50			127,091.30
	25		J5	400.00			126,691.30
	30		P2		128,865.15		255,556.45
	30		CP2	146,081.70			109,474.75

ACCOUNT *Salaries Payable* ACCOUNT NO. *2110*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	30	Adjusting	J6		1,700.00		1,700.00

ACCOUNT *Customer Refunds Payable* ACCOUNT NO. *2120*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	*1*	*Balance*	✓				*3,300.00*
	9		J5	823.20			2,476.80
	19		J5	416.50			2,060.30
	30	Adjusting	J6		4,470.00		6,530.30

ACCOUNT *Notes Payable* ACCOUNT NO. *2150*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	*1*	*Balance*	✓				*168,000.00*

ACCOUNT *Marty Chavez, Capital* ACCOUNT NO. *3100*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	*1*	*Balance*	✓				*666,482.00*
	30	Closing	J7		27,366.18		693,848.18
	30	Closing	J7	6,700.00			687,148.18

ACCOUNT *Marty Chavez, Drawing* ACCOUNT NO. *3110*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	17		CP2	4,200.00		4,200.00	
	27		CP2	2,500.00		6,700.00	
	30	Closing	J7		6,700.00	—	—

ACCOUNT *Income Summary* ACCOUNT NO. *3120*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	30	Closing	J7		219,139.08		219,139.08
	30	Closing	J7	191,772.90			27,366.18
	30	Closing	J7	27,366.18		—	—

ACCOUNT *Sales* ACCOUNT NO. *4100*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	30		R2		105,499.08		105,499.08
	30		CR2		118,020.00		223,519.08
	30	Adjusting	J6	4,470.00			219,049.08
	30	Closing	J7	219,049.08		—	—

ACCOUNT *Cost of Goods Sold* ACCOUNT NO. *5100*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	30		R2	76,437.88		76,437.88	
	30		CR2	81,326.80		157,764.68	
	30	Adjusting	J6	142.22		157,906.90	
	30	Adjusting	J6		3,190.00	154,716.90	
	30	Closing	J7		154,716.90	—	—

ACCOUNT *Sales Salaries Expense* ACCOUNT NO. *5200*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	13		CP2	8,000.00		8,000.00	
	26		CP2	8,000.00		16,000.00	
	30	Adjusting	J6	1,200.00		17,200.00	
	30	Closing	J7		17,200.00	—	—

ACCOUNT *Advertising Expense* ACCOUNT NO. *5210*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	17		CP2	441.00		441.00	
	18		CP2	185.00		626.00	
	30	Closing	J7		626.00	—	—

ACCOUNT *Store Supplies Expense* ACCOUNT NO. *5220*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	30	Adjusting	J6	650.00		650.00	
	30	Closing	J7		650.00	—	—

ACCOUNT *Miscellaneous Selling Expense* ACCOUNT NO. *5290*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	10		CP2	175.00		175.00	
	16		P2	675.00		850.00	
	20		CP2	231.00		1,081.00	
	29		CP2	408.00		1,489.00	
	30	Closing	J7		1,489.00	—	—

ACCOUNT *Office Salaries Expense* ACCOUNT NO. *5300*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	13		CP2	5,000.00		5,000.00	
	26		CP2	5,000.00		10,000.00	
	30	Adjusting	J6	500.00		10,500.00	
	30	Closing	J7		10,500.00	—	—

ACCOUNT *Depreciation Expense—Equipment* ACCOUNT NO. *5320*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	30	Adjusting	J6	1,250.00		1,250.00	
		Closing	J7		1,250.00	—	—

ACCOUNT *Insurance Expense* ACCOUNT NO. *5330*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	30	Adjusting	J6	475.00		475.00	
	30	Closing	J7		475.00	—	—

ACCOUNT *Office Supplies Expense* ACCOUNT NO. *5340*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	30	Adjusting	J6	500.00		500.00	
	30	Closing	J7		500.00	—	—

ACCOUNT *Depreciation Expense—Building* ACCOUNT NO. *5350*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	30	Adjusting	J6	2,475.00		2,475.00	
	30	Closing	J7		2,475.00	—	—

ACCOUNT *Miscellaneous Administrative Expense* ACCOUNT NO. *5390*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	24		CP2	287.00		287.00	
	27		CP2	340.00		627.00	
	29		CP2	204.00		831.00	
	29		CP2	360.00		1,191.00	
	30	Closing	J7		1,191.00	—	—

ACCOUNT *Interest Revenue* ACCOUNT NO. *6100*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	30		CR2		60.00		60.00
	30	Adjusting	J6		30.00		90.00
	30	Closing	J7	90.00		—	—

ACCOUNT *Interest Expense* ACCOUNT NO. *7100*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE	
						DEBIT	CREDIT
20Y8							
Apr.	30		CP2	700.00		700.00	
	30	Closing	J7		700.00	—	—

ACCOUNTS RECEIVABLE LEDGER

NAME *All Access Fitness Center*

ADDRESS *1 South Park Blvd., South Miami, FL 33143*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE
20Y8						
Apr.	3		R2	9,364.29		9,364.29
	12		CR2		9,364.29	—
	23		R2	13,770.64		13,770.64

NAME *Body Excellence Fitness Club*

ADDRESS *9 Key Biscayne Ave., Suite 100, Key Biscayne, FL 33149*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE
20Y8						
Apr.	*1*	*Balance*	✓			*14,406.00*
	2		CR2		14,406.00	—
	26		R2	3,789.17		3,789.17

NAME *Cory's Gym in the Grove*

ADDRESS *20 Main Highway, Coconut Grove, FL 33133*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE
20Y8						
Apr.	*1*	*Balance*	✓			*12,348.00*
	3		CR2		12,348.00	—
	25		R2	5,186.36		5,186.36

NAME *Miami Health Club*

ADDRESS *8050 SW 8th Street, Miami, FL 33130*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE
20Y8						
Apr.	1		R2	5,301.60		5,301.60
	11		CR2		5,301.60	—
	16		R2	5,649.80		5,649.80
	19		J5		416.50	5,233.30

NAME *Pine Bay Fitness Club*

ADDRESS *8 SW 57th Ave., Miami, FL 33156*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE
20Y8						
Apr.	1	*Balance*	✓			10,976.00
	8		CR2		10,976.00	—

NAME *Rockdale Gym*

ADDRESS *162 S. Dixie Hwy., Rockdale, FL 33157*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE
20Y8						
Apr.	10		R2	13,373.86		13,373.86
	26		CR2		13,373.86	—

NAME *The Sun Set Recreation Center*

ADDRESS *50 Snapper Creek Dr., Sunset, FL 33173*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE
20Y8						
Apr.	*1*	*Balance*	✓			*6,174.00*
	4		CR2		6,174.00	—
	8		R2	21,756.88		21,756.88
	9		J5		823.20	20,933.68
	18		CR2		20,933.68	—

NAME *Westwood Boxing Gym*

ADDRESS *50 Westwood Lake Dr., Miami, FL 33165*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE
20Y8						
Apr.	*1*	*Balance*	✓			*8,232.00*
	11		R2	27,306.48		35,538.48
	16		CR2		8,232.00	27,306.48
	19		CR2		27,306.48	—

ACCOUNTS PAYABLE LEDGER

NAME *Alexus Fitness Connection*

ADDRESS *100 Coral Way, Miami, FL 33129*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE
20Y8						
April	*1*	*Balance*	✓			*14,268.80*
	1		P2		13,865.00	28,133.80
	1		CP2	14,268.80		13,865.00
	16		P2		10,105.00	23,970.00
	27		CP2	13,865.00		10,105.00

NAME *Fit & Fab Health Products*

ADDRESS *15 Park Avenue, 115th Floor, New York, NY 10154*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE
20Y8						
April	8		P2		5,125.40	5,125.40
	11		J5	857.50		4,267.90
	18		CP2	4,267.90		—

NAME *Fizzy-Cal Network*

ADDRESS *45 Caribbean Avenue, Los Angeles, CA 90001*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE
20Y8						
April	*1*	*Balance*	✓			*46,480.00*
	3		CP2	46,480.00		—
	9		P2		11,400.00	11,400.00
	20		P2		5,350.00	16,750.00
	22		P2		10,800.00	27,550.00

NAME *HeartFit Enterprises*

ADDRESS *15 Brickell Ave. #150, Miami, FL 33129*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE
20Y8						
April	*1*	*Balance*	✓			*14,000.00*
	4		CP2	14,000.00		—
	22		P2		3,400.00	3,400.00
	25		J5	400.00		3,000.00

NAME *Muscles R$_x$ Distributors*

ADDRESS *80 Commercial Blvd., Fort Lauderdale, FL 33310*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE
20Y8						
April	*1*	*Balance*	✓			*53,200.00*
	18		CP2	53,200.00		—

NAME *Sports Magic Warehouse*

ADDRESS *246 Santa Monica Blvd., Santa Monica, CA 90403*

DATE		ITEM	POST. REF.	DEBIT	CREDIT	BALANCE
20Y8						
April	5		P2		49,519.75	49,519.75
	17		P2		16,900.00	66,419.75
	24		P2		2,400.00	68,819.75

Fit & Fashionable		
DEPOSIT TICKETS		

April 6

CHECKS:	Body Excellence Fitness Club	14,406.00
	Cory's Gym in the Grove	12,348.00
	The Sun Set Recreation Center	6,174.00
	TOTAL	32,928.00

April 13

CHECKS:	Westwood Boxing Gym	8,232.00
	Pine Bay Fitness Club	10,976.00
	SupplyMax	300.00
	Miami Health Club	5,301.60
	All Access Fitness Center	9,364.29
	TOTAL	34,173.89

April 20

CHECKS:	Westwood Boxing Gym	27,306.48
	The Sun Set Recreation Center	20,933.68
	Rockdale Gym	13,373.86
	TOTAL	61,614.02

April 30

CHECKS:	Blue Water Enterprises	3,060.00
	TOTAL	3,060.00

Fit & Fashionable				
CHECK STUBS FOR APRIL				
Check Number	Date	Check Amount	Deposits	Balance
				84,147.80
2201	1	14,268.80		69,879.00
2202	2	5,700.00		64,179.00
2203	3	46,480.00		17,699.00
2204	4	14,000.00		3,699.00
	6		26,600.00	30,299.00
	6		32,928.00	63,227.00
2205	10	175.00		63,052.00
2206	13	13,000.00		50,052.00
	13		36,120.00	86,172.00
	13		34,173.89	120,345.89
2207	17	4,200.00		116,145.89
2208	17	441.00		115,704.89
2209	18	4,267.90		111,436.99
2210	18	53,200.00		58,236.99
2211	18	185.00		58,051.99
2212	20	231.00		57,820.99
	20		27,020.00	84,840.99
	20		61,614.02	146,455.01
2213	24	287.00		146,168.01
2214	26	13,000.00		133,168.01
2215	27	340.00		132,828.01
2216	27	13,865.00		118,963.01
2217	27	2,500.00		116,463.01
2218	29	612.00		115,851.01
2219	29	360.00		115,491.01
2220	30	700.00		114,791.01
	30		28,280.00	143,071.01
	30		3,060.00	146,131.01

Fit & Fashionable

Schedule of Accounts Receivable

April 30, 20Y8

All Access Fitness Center	$ 13,770.64
Body Excellence Fitness Club	3,789.17
Cory's Gym in the Grove	5,186.36
Miami Health Club	5,233.30
Total Accounts Receivable	$ 27,979.47

Fit & Fashionable

Schedule of Accounts Payable

April 30, 20Y8

Alexus Fitness Connection	$ 10,105.00
Fizzy-Cal Network	27,550.00
HeartFit Enterprises	3,000.00
Sports Magic Warehouse	68,819.75
Total Accounts Payable	$ 109,474.75

Fit & Fashionable

Trial Balance (Preadjusting)

April 30, 20Y8

ACCOUNT	ACCT. NO.	DEBIT BALANCES	CREDIT BALANCES
Cash	1110	146,131.01	
Notes Receivable	1111	6,800.00	
Accounts Receivable	1112	27,979.47	
Interest Receivable	1113		
Inventory	1114	208,696.97	
Estimated Returns Inventory	1115	1,453.00	
Office Supplies	1116	2,100.00	
Store Supplies	1117	3,655.00	
Prepaid Insurance	1118	5,700.00	
Land	1120	210,000.00	
Building	1122	439,000.00	
Accumulated Depreciation—Building	1123		140,200.00
Equipment	1124	98,350.00	
Accumulated Depreciation—Equipment	1125		34,540.00
Accounts Payable	2100		109,474.75
Salaries Payable	2110		
Customer Refunds Payable	2120		2,060.30
Notes Payable	2150		168,000.00
Marty Chavez, Capital	3100		666,482.00
Marty Chavez, Drawing	3110	6,700.00	
Sales	4100		223,519.08
Cost of Goods Sold	5100	157,764.68	
Sales Salaries Expense	5200	16,000.00	
Advertising Expense	5210	626.00	
Store Supplies Expense	5220		
Miscellaneous Selling Expense	5290	1,489.00	
Office Salaries Expense	5300	10,000.00	
Depreciation Expense—Equipment	5320		
Insurance Expense	5330		
Office Supplies Expense	5340		
Depreciation Expense—Building	5350		
Miscellaneous Administrative Expense	5390	1,191.00	
Interest Revenue	6100		60.00
Interest Expense	7100	700.00	
		1,344,336.13	1,344,336.13

Fit &
Work
April 30,

	ACCOUNT TITLE	TRIAL BALANCE		ADJUSTMENTS		
		DEBIT	CREDIT	DEBIT	CREDIT	
1	*Cash*	146,131.01				1
2	*Notes Receivable*	6,800.00				2
3	*Accounts Receivable*	27,979.47				3
4	*Interest Receivable*			(g) 30.00		4
5	*Inventory*	208,696.97			(a) 142.22	5
6	*Estimated Returns Inventory*	1,453.00		(j) 3,190.00		6
7	*Office Supplies*	2,100.00			(b) 500.00	7
8	*Store Supplies*	3,655.00			(c) 650.00	8
9	*Prepaid Insurance*	5,700.00			(d) 475.00	9
10	*Land*	210,000.00				10
11	*Building*	439,000.00				11
12	*Accum. Depreciation—Building*		140,200.00		(f) 2,475.00	12
13	*Equipment*	98,350.00				13
14	*Accum. Depreciation—Equipment*		34,540.00		(e) 1,250.00	14
15	*Accounts Payable*		109,474.75			15
16	*Salaries Payable*				(h) 1,700.00	16
17	*Customer Refunds Payable*		2,060.30		(i) 4,470.00	17
18	*Notes Payable*		168,000.00			18
19	*Marty Chavez, Capital*		666,482.00			19
20	*Marty Chavez, Drawing*	6,700.00				20
21	*Sales*		223,519.08	(i) 4,470.00		21
22	*Cost of Goods Sold*	157,764.68		(a) 142.22	(j) 3,190.00	22
23	*Sales Salaries Expense*	16,000.00		(h) 1,200.00		23
24	*Advertising Expense*	626.00				24
25	*Store Supplies Expense*			(c) 650.00		25
26	*Miscellaneous Selling Expense*	1,489.00				26
27	*Office Salaries Expense*	10,000.00		(h) 500.00		27
28	*Depr. Expense—Equipment*			(e) 1,250.00		28
29	*Insurance Expense*			(d) 475.00		29
30	*Office Supplies Expense*			(b) 500.00		30
31	*Depr. Expense—Building*			(f) 2,475.00		31
32	*Miscellaneous Admin. Expense*	1,191.00				32
33	*Interest Revenue*		60.00		(g) 30.00	33
34	*Interest Expense*	700.00				34
35	*Totals*	1,344,336.13	1,344,336.13	14,882.22	14,882.22	35
36	*Net Income*					36
37						37
38						38
39						39

Fashionable

Sheet

20Y8

	ADJUSTED TRIAL BALANCE		INCOME STATEMENT		BALANCE SHEET		
	DEBIT	CREDIT	DEBIT	CREDIT	DEBIT	CREDIT	
1	146,131.01				146,131.01		1
2	6,800.00				6,800.00		2
3	27,979.47				27,979.47		3
4	30.00				30.00		4
5	208,554.75				208,554.75		5
6	4,643.00				4,643.00		6
7	1,600.00				1,600.00		7
8	3,005.00				3,005.00		8
9	5,225.00				5,225.00		9
10	210,000.00				210,000.00		10
11	439,000.00				439,000.00		11
12		142,675.00				142,675.00	12
13	98,350.00				98,350.00		13
14		35,790.00				35,790.00	14
15		109,474.75				109,474.75	15
16		1,700.00				1,700.00	16
17		6,530.30				6,530.30	17
18		168,000.00				168,000.00	18
19		666,482.00				666,482.00	19
20	6,700.00				6,700.00		20
21		219,049.08		219,049.08			21
22	154,716.90		154,716.90				22
23	17,200.00		17,200.00				23
24	626.00		626.00				24
25	650.00		650.00				25
26	1,489.00		1,489.00				26
27	10,500.00		10,500.00				27
28	1,250.00		1,250.00				28
29	475.00		475.00				29
30	500.00		500.00				30
31	2,475.00		2,475.00				31
32	1,191.00		1,191.00				32
33		90.00		90.00			33
34	700.00		700.00				34
35	1,349,791.13	1,349,791.13	191,772.90	219,139.08	1,158,018.23	1,130,652.05	35
36			27,366.18			27,366.18	36
37			219,139.08	219,139.08	1,158,018.23	1,158,018.23	37
38							38
39							39

Fit & Fashionable
Income Statement
For the Month Ended April 30, 20Y8

Revenues:			
Sales			$ 219,049.08
Cost of goods sold			154,716.90
Gross profit			$ 64,332.18
Operating expenses:			
Selling expenses:			
Sales salaries expense	$ 17,200.00		
Advertising expense	626.00		
Store supplies expense	650.00		
Miscellaneous selling expense	1,489.00		
Total selling expenses		$ 19,965.00	
Administrative expenses:			
Office salaries expense	$ 10,500.00		
Depreciation expense—equipment	1,250.00		
Insurance expense	475.00		
Office supplies expense	500.00		
Depreciation expense—building	2,475.00		
Miscellaneous administrative expense	1,191.00		
Total administrative expenses		16,391.00	
Total operating expenses			36,356.00
Income from operations			$ 27,976.18
Other revenue and expense:			
Interest revenue		$ 90.00	
Interest expense		(700.00)	(610.00)
Net income			$ 27,366.18

Fit & Fashionable		
Statement of Owner's Equity		
For the Month Ended April 30, 20Y8		
Marty Chavez, capital, March 31, 20Y8		$ 666,482.00
Net income for the month	$ 27,366.18	
Withdrawals	(6,700.00)	
Change in owner's equity		20,666.18
Marty Chavez, capital, April 30, 20Y8		$ 687,148.18

Fit & Fashionable			
Balance Sheet			
April 30, 20Y8			
Assets			
Current assets:			
Cash		$ 146,131.01	
Notes receivable		6,800.00	
Accounts receivable		27,979.47	
Interest receivable		30.00	
Inventory		208,554.75	
Estimated returns inventory		4,643.00	
Office supplies		1,600.00	
Store supplies		3,005.00	
Prepaid insurance		5,225.00	
Total current assets			$ 403,968.23
Property, plant, and equipment:			
Land		$ 210,000.00	
Building	$ 439,000.00		
Accumulated depreciation	(142,675.00)		
Building, book value		296,325.00	
Equipment	$ 98,350.00		
Accumulated depreciation	(35,790.00)		
Equipment, book value		62,560.00	
Total property, plant, and equipment			568,885.00
Total assets			$ 972,853.23
Liabilities			
Current liabilities:			
Accounts payable		$ 109,474.75	
Salaries payable		1,700.00	
Customer refunds payable		6,530.30	
Total current liabilities			$ 117,705.05
Long-term liabilities:			
Notes payable			168,000.00
Total liabilities			$ 285,705.05
Owner's Equity			
Marty Chavez, capital			687,148.18
Total liabilities and owner's equity			$ 972,853.23

Fit & Fashionable

Post-Closing Trial Balance

April 30, 20Y8

ACCOUNT	ACCT. NO.	DEBIT BALANCES	CREDIT BALANCES
Cash	1110	146,131.01	
Notes Receivable	1111	6,800.00	
Accounts Receivable	1112	27,979.47	
Interest Receivable	1113	30.00	
Inventory	1114	208,554.75	
Estimated Returns Inventory	1115	4,643.00	
Office Supplies	1116	1,600.00	
Store Supplies	1117	3,005.00	
Prepaid Insurance	1118	5,225.00	
Land	1120	210,000.00	
Building	1122	439,000.00	
Accumulated Depreciation—Building	1123		142,675.00
Equipment	1124	98,350.00	
Accumulated Depreciation—Equipment	1125		35,790.00
Accounts Payable	2100		109,474.75
Salaries Payable	2110		1,700.00
Customer Refunds Payable	2120		6,530.30
Notes Payable	2150		168,000.00
Marty Chavez, Capital	3100		687,148.18
		1,151,318.23	1,151,318.23

Fit & Fashionable

ANALYSIS TEST

	Journals		
1.	Total Merchandise Purchases during April	$	125,915.15
2.	Total Cash Sales during April	$	118,020.00
3.	Total Sales on Account for April	$	105,499.08
4.	Total Accounts Payable Credits during April	$	128,865.15
	Accounts Receivable Ledger		
5.	All Access Fitness Center Balance on April 30	$	13,770.64
6.	Miami Health Club Balance on April 30	$	5,233.30
	Accounts Payable Ledger		
7.	Alexus Fitness Center Balance on April 30	$	10,105.00
8.	Sports Magic Warehouse Balance on April 30	$	68,819.75
	Income Statement		
9.	Sales	$	219,049.08
10.	Cost of Goods Sold	$	154,716.90
11.	Gross Profit	$	64,332.18
12.	Total Operating Expenses	$	36,356.00
13.	Net Income	$	27,366.18
	Statement of Owner's Equity		
14.	Change in Owner's Equity	$	20,666.18
15.	Ending Balance of Owner's Equity, April 30	$	687,148.18
	Balance Sheet		
16.	Total Current Assets	$	403,968.23
17.	Total Property, Plant, and Equipment	$	568,885.00
18.	Total Current Liabilities	$	117,705.05
	Adjustments		
19.	Adjustment to Office Supplies	$	500.00
20.	Adjustment to Prepaid Insurance	$	475.00
21.	Adjustment to Store Supplies	$	650.00
22.	Adjustment for Inventory Shrinkage	$	142.22
	Closing		
23.	Amount Closed to Capital from Income Summary	$	27,366.18
24.	Post-Closing Trial Balance Total	$	1,151,318.23
25.	Amount Closed from Drawing to Capital	$	6,700.00

Chapter 2

Job Order Costing

Managerial Accounting 14e

Warren
Reeve
Duchac

Learning Objectives

- **Obj. 1**: Describe cost accounting systems used by manufacturing businesses.
- **Obj. 2**: Describe and illustrate a job order cost accounting system for a manufacturing business.
- **Obj. 3**: Describe job order cost accounting systems for service businesses.

Cost Accounting Systems Overview
(slide 1 of 3)

- **Cost accounting systems** measure, record, and report product costs.
  - Managers use product costs for setting product prices, controlling operations, and developing financial statements.
- The two main types of cost accounting systems for manufacturing are:
  - Job order cost systems
  - Process cost systems

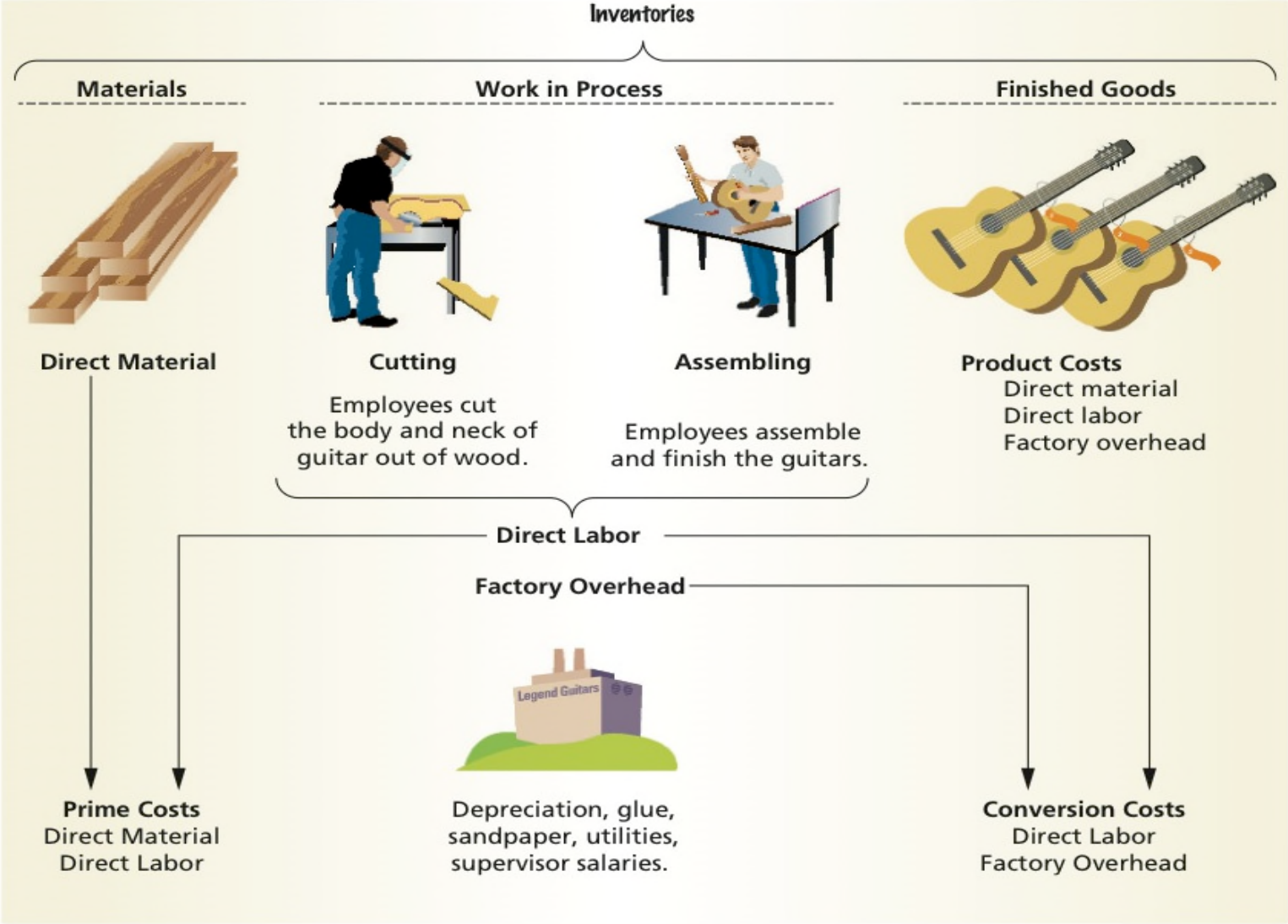
Cost Accounting Systems Overview
(slide 2 of 3)

- A **job order cost system** provides product costs for each quantity of product that is manufactured.
  - Each quantity of product that is manufactured is called a job.
- Job order costs systems are often used by companies that manufacture custom products for customers or batches of similar products.
  - Manufacturers that use a job order cost system are sometimes called job shops.
    - Examples of a job shop would be a(n):
      - Apparel manufacturer
      - Guitar manufacturer

Cost Accounting Systems Overview
(slide 3 of 3)

- A **process cost system** provides product costs for each manufacturing department or process.
- Process cost systems are often used by companies that manufacture units of a product that are indistinguishable from each other and are manufactured using a continuous production process.
  - Examples would be: Oil refineries, Paper producers, Chemical processers, Food processors

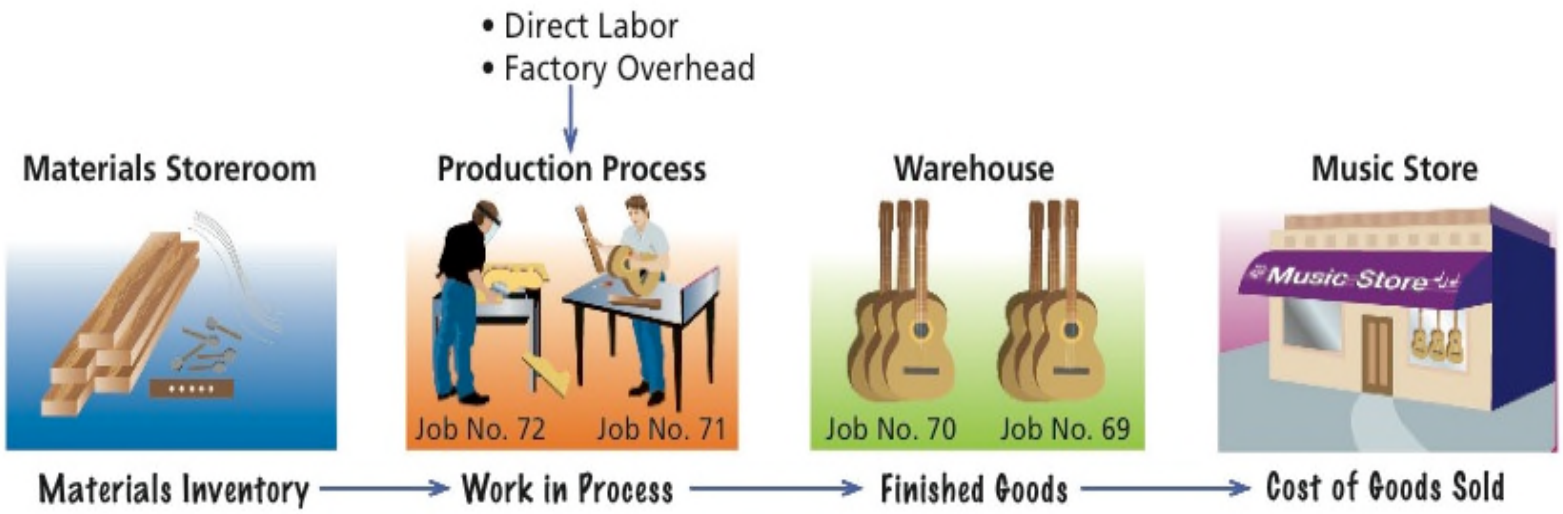
Summary of Legend Guitars' Manufacturing Operations



Job Order Cost Systems for Manufacturing Businesses (slide 1 of 2)

- A job order cost system records and summarizes manufacturing costs by jobs.
  - While jobs are still in the production process, they are part of Work in Process Inventory.
  - As jobs are completed, they become part of Finished Goods Inventory.
  - When the finished goods are sold to customers, their costs become part of Cost of Goods Sold.

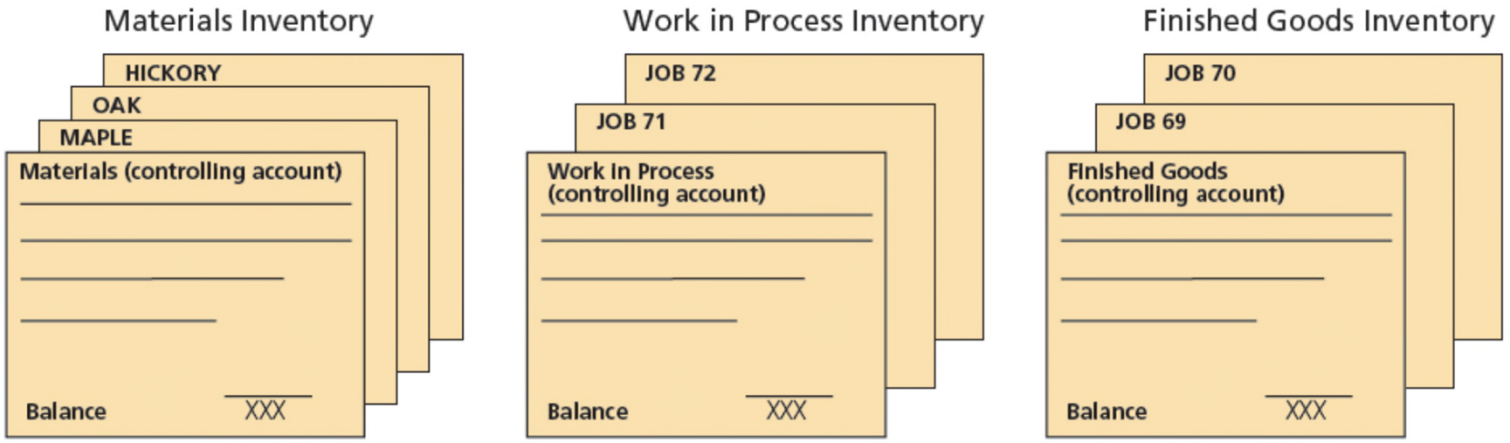
Flow of Manufacturing Costs



Job Order Cost Systems for Manufacturing Businesses (slide 2 of 2)

- In a job order cost accounting system, perpetual inventory controlling accounts and subsidiary ledgers are maintained for materials, work in process, and finished goods inventories.

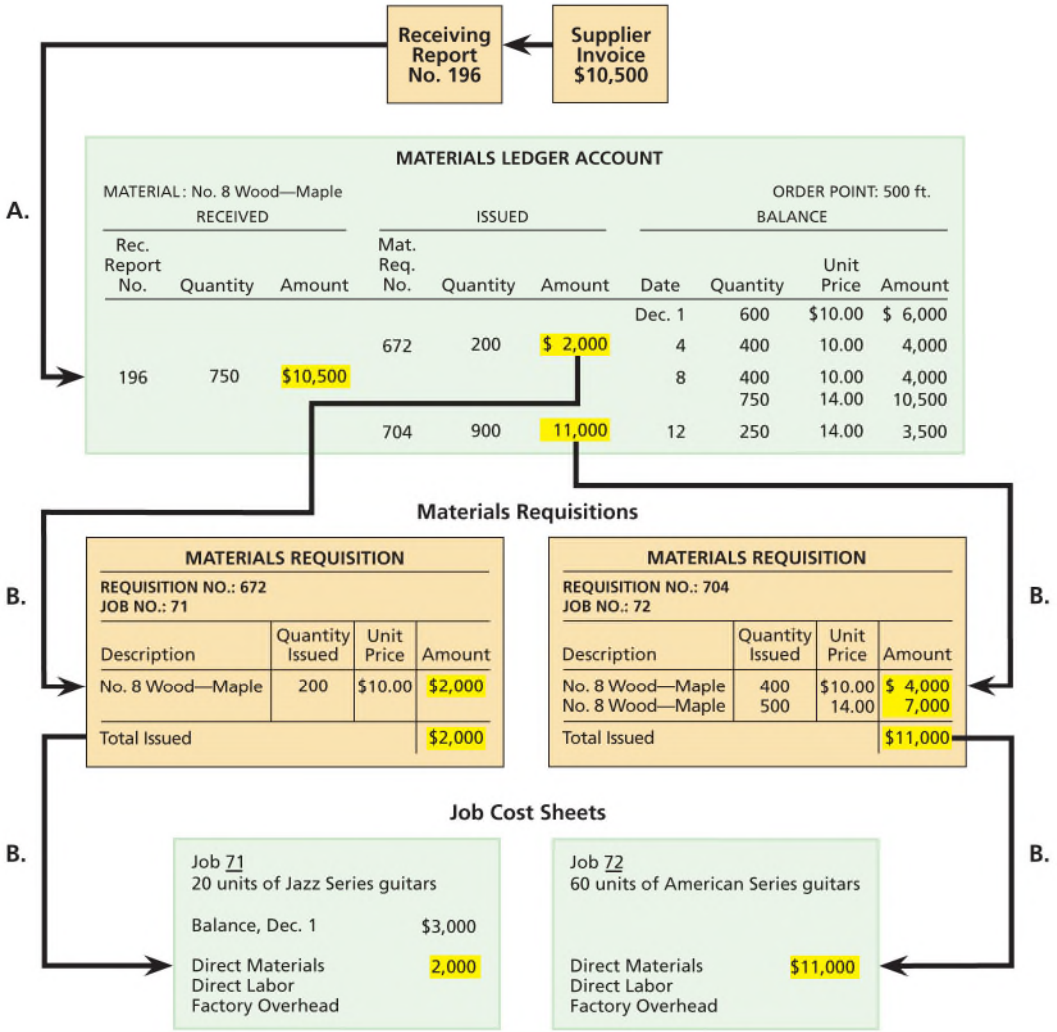
Inventory Ledger Accounts



Materials
(slide 1 of 6)

- The materials account in the general ledger is a controlling account. A separate account for each type of material is maintained in a subsidiary **materials ledger**:
  - Increases (debits) are based on receiving reports, which is supported by the supplier's invoice.
  - Decreases (credits) are based on materials requisitions for particular jobs.

Materials Information and Cost Flows



Materials
(slide 2 of 6)

- A **receiving report** is prepared when materials that have been ordered are received and inspected.
- The quantity received and the condition of the materials are entered on the receiving report.

Materials
(slide 3 of 6)

- When the supplier's invoice is received, it is compared to the receiving report.
- If there are no discrepancies, a journal entry is made to record the purchase.
  - This entry increases (debits) Materials and increases (credits) Accounts Payable.
    - The journal entry to record the supplier's invoice related to Receiving Report No. 196 (see slide 12) is as follows:

Materials	10,500	
Accounts Payable		10,500
Materials purchased during December.		

Materials
(slide 4 of 6)

- The storeroom releases materials to use in a job when a **materials requisition** is received.
- The materials requisitions for each job serve as the basis for recording materials used.

Materials
(slide 5 of 6)

- For direct materials, the quantities and amounts from the materials requisitions are posted to job cost sheets.
  - **Job cost sheets** make up the work in process subsidiary ledger.

Materials
(slide 6 of 6)

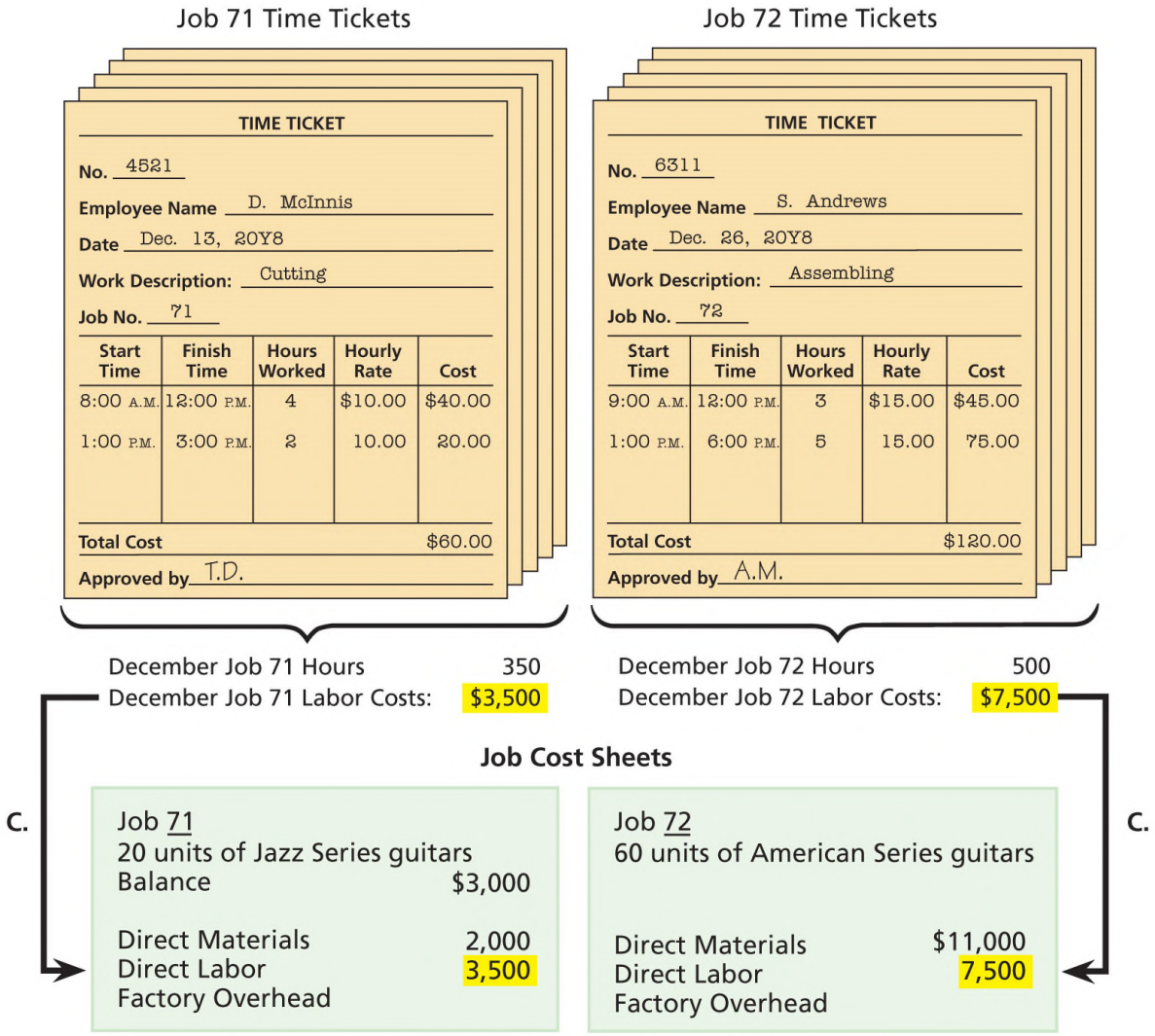
- A summary of the materials requisitions is used as a basis for the journal entry recording the materials used for the month.
  - For direct materials, this entry increases (debits) Work in Process and decreases (credits) Materials.
    - The journal entry to record the direct materials used for the month for Legend Guitars (see slide 12) is as follows:

Work in Process	13,000	
Materials		13,000
Materials requisitioned to jobs ($2,000 + $11,000).		

Factory Labor
(slide 1 of 2)

- When employees report for work, they may use electronic badges, clock cards, or in-and-out cards to clock in.
- When employees work on an individual job, they use **time tickets** to record the amount of time they have worked on a specific job.

Labor Information and Cost Flows



Factory Labor
(slide 2 of 2)

- A summary of the time tickets is used as the basis for the journal entry recording direct labor for the month.
  - This entry increases (debits) Work in Process and increases (credits) Wages Payable.
    - The journal entry to record direct labor for the month for Legend Guitars (see previous slide) is as follows:

Work in Process	11,000	
Wages Payable		11,000
Factory labor used in production of jobs ($3,500 + $7,500).		

Factory Overhead
(slide 1 of 2)

- Factory overhead includes all manufacturing costs except direct materials and direct labor.
- Factory overhead costs come from a variety of sources, including the following:
  - Indirect materials comes from a summary of materials requisitions.
  - Indirect labor comes from the salaries of production supervisors and the wages of other employees such as janitors.
  - Factory power comes from utility bills.
  - Factory depreciation comes from Accounting Department computation of depreciation.

Factory Overhead
(slide 2 of 2)

- Assume that Legend Guitars incurred $4,600 of overhead during December, which included $500 of indirect materials, $2,000 of indirect labor, $900 of utilities, and $1,200 of factory depreciation. The $500 of indirect materials consisted of $200 of glue and $300 of sandpaper. The entry to record the factory overhead is as follows:

Factory Overhead	4,600	
Materials		500
Wages Payable		2,000
Utilities Payable		900
Accumulated Depreciation		1,200
Factory overhead incurred in production.		

Check Up Corner

Direct Materials, Direct Labor, and Factor Overhead Costs (slide 1 of 2)

Grayson Company is a manufacturer that uses a job order cost system. The following data summarize the operations related to production for January, the first month of operations:

A. Purchased 400 units of materials at $14 per unit on account.

B. Requisitioned materials for production as follows:
   - 200 units for Job 101 at $12 per unit.
   - 300 units for Job 102 at $14 per unit.

C. Accumulated direct labor cost as follows:
   - 700 hours of direct labor on Job 101 at $16 per hour.
   - 600 hours of direct labor on Job 102 at $12 per hour.

D. Incurred factory overhead costs as follows: indirect materials, $800; indirect labor, $3,400; utilities cost, $1,600; and factory depreciation, $2,500.

Journalize the entries to record these transactions.

Check Up Corner

Direct Materials, Direct Labor, and Factor Overhead Costs (slide 2 of 2)

Solution:

A.	Materials	5,600	
	Accounts Payable		5,600
B.	Work in Process	6,600	
	Materials		6,600
C.	Work in Process	18,400	
	Wages Payable		18,400
D.	Factory Overhead	8,300	
	Materials		800
	Wages Payable		3,400
	Utilities Payable		1,600
	Accumulated Depreciation—Factory		2,500

Purchase of Materials
400 units × $14 per unit

Requisition of Materials

	Qty.		Price		Total Cost
Job 101	200	×	$12	=	$2,400
Job 102	300	×	$14	=	4,200
Total					$6,600

Direct Labor Cost

	Hours		Rate		Total Cost
Job 101	700	×	$16	=	$11,200
Job 102	600	×	$12	=	7,200
Total					$18,400

Allocating Factory Overhead
(slide 1 of 2)

- Factory overhead is different from direct labor and direct materials in that it is indirectly related to the jobs. That is, factory overhead costs cannot be identified with or traced to specific jobs. For this reason, factory overhead costs are allocated to jobs.

Allocating Factory Overhead
(slide 2 of 2)

- The process by which factory overhead or other costs are assigned to a cost object, such as a job, is called **cost allocation**.
  - The factory overhead costs are allocated to jobs using a common measure related to each job.
    - This measure is called an **activity base**, allocation base, or activity driver.
      - Three common activity bases used to allocate factory overhead are:
        1. Direct labor hours
        2. Direct labor cost
        3. Machine hours

Predetermined Factory Overhead Rate
(slide 1 of 3)

- Factory overhead costs are normally allocated or applied to jobs using a **predetermined factory overhead rate**.
- The predetermined factory overhead rate is computed as:

$$\text{Predetermined Factory Overhead Rate} = \frac{\text{Estimated Total Factory Overhead Costs}}{\text{Estimated Activity Base}}$$

Predetermined Factory Overhead Rate
(slide 2 of 3)

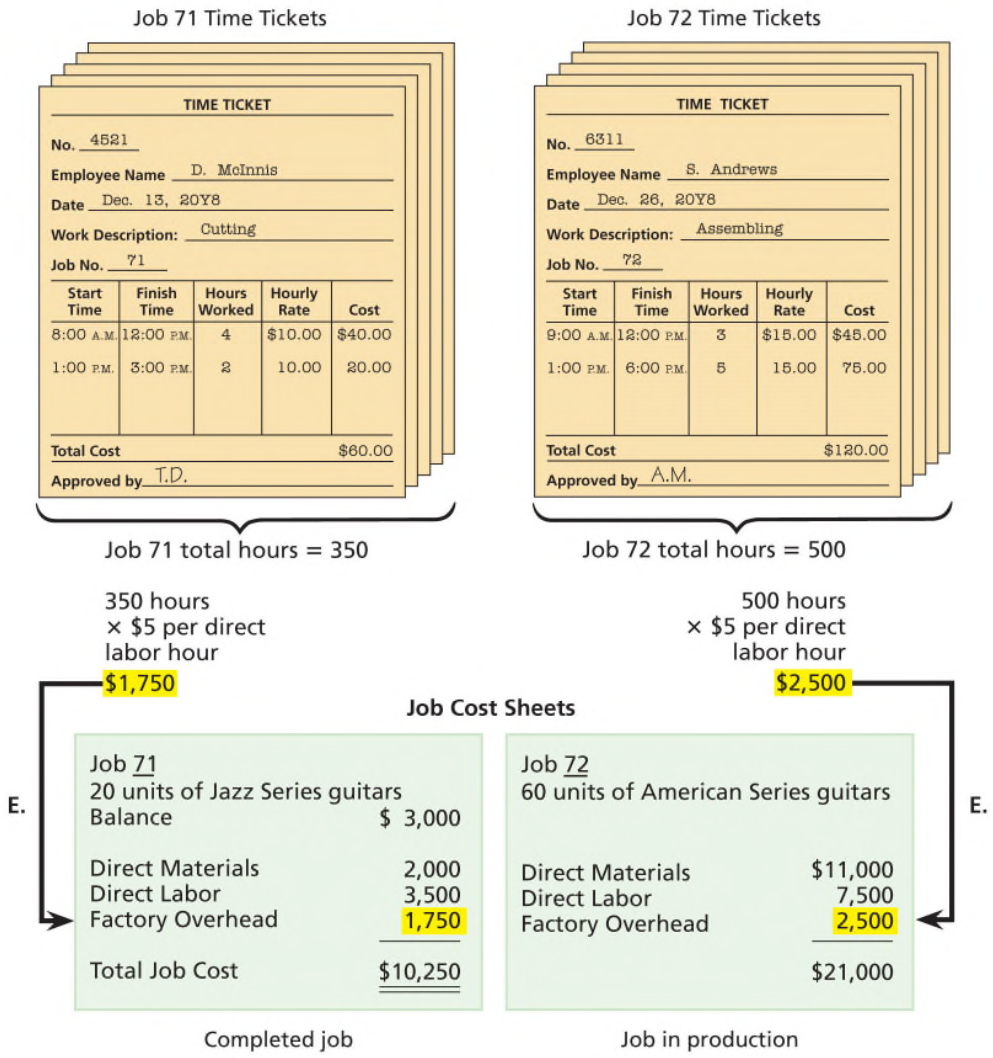
- Assume that Legend Guitars estimates the total factory overhead cost as $50,000 for the year and the activity base as 10,000 direct labor hours. The predetermined factory overhead rate is computed as follows:

$$\text{Predetermined Factory Overhead Rate} = \frac{\$50{,}000}{10{,}000 \text{ direct labor hours}} = \$5 \text{ per direct labor hour}$$

Predetermined Factory Overhead Rate
(slide 3 of 3)

- Many companies are using a method for accumulating and allocating factory overhead costs. This method, called **activity-based costing**, uses a different overhead rate for each type of factory overhead activity, such as inspecting, moving, and machining.

Applying Factory Overhead to Jobs



Applying Factory Overhead to Work In Process
(slide 1 of 5)

- Using a factory overhead rate of $5 per direct labor hour, $4,250 of factory overhead is applied as follows:

	Direct Labor Hours	Factory Overhead Rate	Factory Overhead Applied
Job 71	350	$5	$1,750 (350 hrs. × $5)
Job 72	500	$5	2,500 (500 hrs. × $5)
Total	850		$4,250

Applying Factory Overhead to Work In Process
(slide 2 of 5)

- The journal entry to apply factory overhead increases (debits) Work in Process and credits Factory Overhead.
  - The journal entry to apply overhead to Jobs 71 and 72 is as follows:

Work in Process	4,250	
Factory Overhead		4,250
Factory overhead applied to jobs according to the predetermined overhead rate (850 hrs. × $5).		

Applying Factory Overhead to Work In Process
(slide 3 of 5)

- The factory overhead account is:
  - Increased (debited) for the actual overhead costs incurred.
  - Decreased (credited) for the applied overhead.
- The actual and applied overhead usually differ because the actual overhead costs are normally different from the estimated overhead costs.

Applying Factory Overhead to Work In Process
(slide 4 of 5)

- Depending on whether actual overhead is greater or less than applied overhead, the factory overhead account will either have a debit or credit ending balance as follows:
  - If the applied overhead is less than the actual overhead incurred, the factory overhead account will have a debit balance.
    - This debit balance is called **underapplied factory overhead** or underabsorbed factory overhead.
  - If the applied overhead is more than the actual overhead incurred, the factory overhead account will have a credit balance.
    - This debit balance is called **overapplied factory overhead** or overabsorbed factory overhead.

Applying Factory Overhead to Work In Process
(slide 5 of 5)

- The factory overhead account for Legend Guitars, which follows, illustrates both underapplied and overapplied factory overhead.

Account *Factory Overhead* *Account No.*

Date		Item	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
20Y8 Dec.	1	Balance					200
	31	Factory overhead cost incurred		4,600		4,400	
	31	Factory overhead cost applied			4,250	150	

Underapplied balance
Overapplied balance

Check Up Corner

Applying Overhead and Determining Job Cost (slide 1 of 3)

Grayson Company estimates that total factory overhead costs will be $100,000 for the year. Direct labor hours are estimated to be 25,000. The company had two completed jobs at the end of January, Jobs 101 and 102. Data on accumulated direct labor hours and units produced for these jobs are as follows:

	Direct Labor Hours	Units Produced
Job 101	700	500
Job 102	600	1,000

A. Using the information provided, determine:
   1. The predetermined factory overhead rate using direct labor hours as the activity base.
   2. The amount of factory overhead applied to Jobs 101 and 102 in January.

B. Prepare the journal entry to apply factory overhead to both jobs in January using the predetermined overhead rate from (A).

C. Using the information provided along with the job cost information from Check Up Corner 16-1, determine:
   1. The balance on the job cost sheets for Jobs 101 and 102 at the end of the month.
   2. The cost per unit for Jobs 101 and 102.

Check Up Corner

Applying Overhead and Determining Job Cost (slide 2 of 3)

Solution:

A. 1.

$$\text{Predetermined Factory Overhead Rate} = \frac{\text{Estimated Total Factory Overhead Costs}}{\text{Estimated Activity Base}} = \frac{\$100{,}000}{\text{25,000 direct labor hours}} = \text{\$4.00 per direct labor hour}$$

A predetermined overhead rate is used to allocate overhead costs to individual jobs.

2.

	Direct Labor Hours		Factory Overhead Rate		Factory Overhead Applied
Job 101	700	×	$4.00	=	$2,800
Job 102	600	×	$4.00	=	2,400
Total					$5,200

The factory overhead cost applied to each job is recorded on the job cost sheet for each job.

B.

Work in Process		5,200	
Factory Overhead			5,200

Check Up Corner

Applying Overhead and Determining Job Cost (slide 3 of 3)

C. 1.

	Job 101	Job 102
Direct materials	$ 2,400	$ 4,200
Direct labor	11,200	7,200
Factory overhead	2,800	2,400
Total costs	$16,400	$13,800
2. Cost per unit	$ 32.80	$ 13.80

The direct materials cost and direct labor cost for each job were determined in Check Up Corner 16-1.

The total costs of each job are accumulated on the job cost sheet.

The total cost is divided by the number of units to determine the cost per unit.

$16,400 ÷ 500 units

$13,800 ÷ 1,000 units

Disposal of Factory Overhead Balance
(slide 1 of 3)

- During the year, the balance in the factory overhead account is carried forward and reported as a deferred debit or credit on the monthly (interim) balance sheets.
- However, any balance in the factory overhead account should not be carried over to the next year.
  - This is because any such balance applies only to operations of the current year.

Disposal of Factory Overhead Balance
(slide 2 of 3)

- The balance of Factory Overhead at the end of the year is disposed of by transferring it to the cost of goods sold account as follows:
  - If there is an ending debit balance (underapplied overhead) in the factory overhead account, it is disposed of by the entry that follows:

Cost of Goods Sold	XXX	
Factory Overhead		XXX
Transfer of underapplied overhead to cost of goods sold.		

  - If there is an ending credit balance (overapplied overhead) in the factory overhead account, it is disposed of by the entry that follows:

Factory Overhead	XXX	
Cost of Goods Sold		XXX
Transfer of overapplied overhead to cost of goods sold.		

Disposal of Factory Overhead Balance
(slide 3 of 3)

- The journal entry to dispose of Legend Guitars' December 31, 2016, underapplied overhead balance of $150 is as follows:

Cost of Goods Sold	150	
Factory Overhead		150
Closed underapplied factory overhead to cost of goods sold.		

Work in Process
(slide 1 of 3)

- During the period, Work in Process is increased (debited) for the following:
  - Direct materials cost
  - Direct labor cost
  - Applied factory overhead cost

Job Cost Sheets and the Work in Process Controlling Account

Job Cost Sheets

Job 71 20 units of Jazz Series guitars	
Balance	$ 3,000
Direct Materials	2,000
Direct Labor	3,500
Factory Overhead	1,750
Total Job Cost	$10,250
Unit Cost	$512.50

Job 72 60 units of American Series guitars	
Direct Materials	$11,000
Direct Labor	7,500
Factory Overhead	2,500
Total Job Cost	$21,000

G.

Account *Work in Process* *Account No.*

Date		Item	Post. Ref.	Debit	Credit	Balance Debit	Balance Credit
20Y8 Dec.	1	Balance				3,000	
	31	Direct materials		13,000		16,000	
	31	Direct labor		11,000		27,000	
	31	Factory overhead		4,250		31,250	
	31	Jobs completed—Job 71			10,250	21,000	

Work in Process
(slide 2 of 3)

- During December, Job 71 was completed. Upon completion, the product costs (direct materials, direct labor, and factory overhead) are totaled. This total is divided by the number of units produced to determine the cost per unit.
  - Thus, the 20 Jazz Series guitars produced as Job 71 cost $512.50 ($10,250 ÷ 20) per guitar.
- After completion, Job 71 is transferred from Work in Process to Finished Goods by the following entry:

Finished Goods	10,250	
Work in Process		10,250
Job 71 completed in December.		

Work in Process
(slide 3 of 3)

- Job 72 was started in December but was not completed by December 31, 2016. Thus, Job 72 is still part of work in process on December 31, 2016.
  - Note that the balance of the job cost sheet for Job 72 ($21,000) is also the December 31, 2016, balance of Work in Process.

Finished Goods

- The finished goods account is a controlling account for the subsidiary **finished goods ledger** or stock ledger:
  - Each account in the finished goods ledger contains cost data for the units manufactured, units sold, and units on hand.

Finished Goods Ledger Account

ITEM: *Jazz Series guitars*

Manufactured			Shipped			Balance			
Job Order No.	Quantity	Amount	Ship Order No.	Quantity	Amount	Date	Quantity	Amount	Unit Cost
						Dec. 1	40	$20,000	$500.00
			643	40	$20,000	9	—	—	—
71	20	$10,250				31	20	10,250	512.50

Sales and Cost of Goods Sold

- During December, Legend Guitars sold 40 Jazz Series guitars for $850 each, generating total sales of $34,000 ($850 × 40 guitars). The cost per guitar sold was $500 or a total cost of $20,000 ($500 × 40). The entries to record the sale and related cost of goods sold are as follows:

Accounts Receivable	34,000	
Sales		34,000
Revenue received from guitars sold on account.		

Cost of Goods Sold	20,000	
Finished Goods		20,000
Cost of 40 Jazz Series guitars sold.		

Period Costs
(slide 1 of 2)

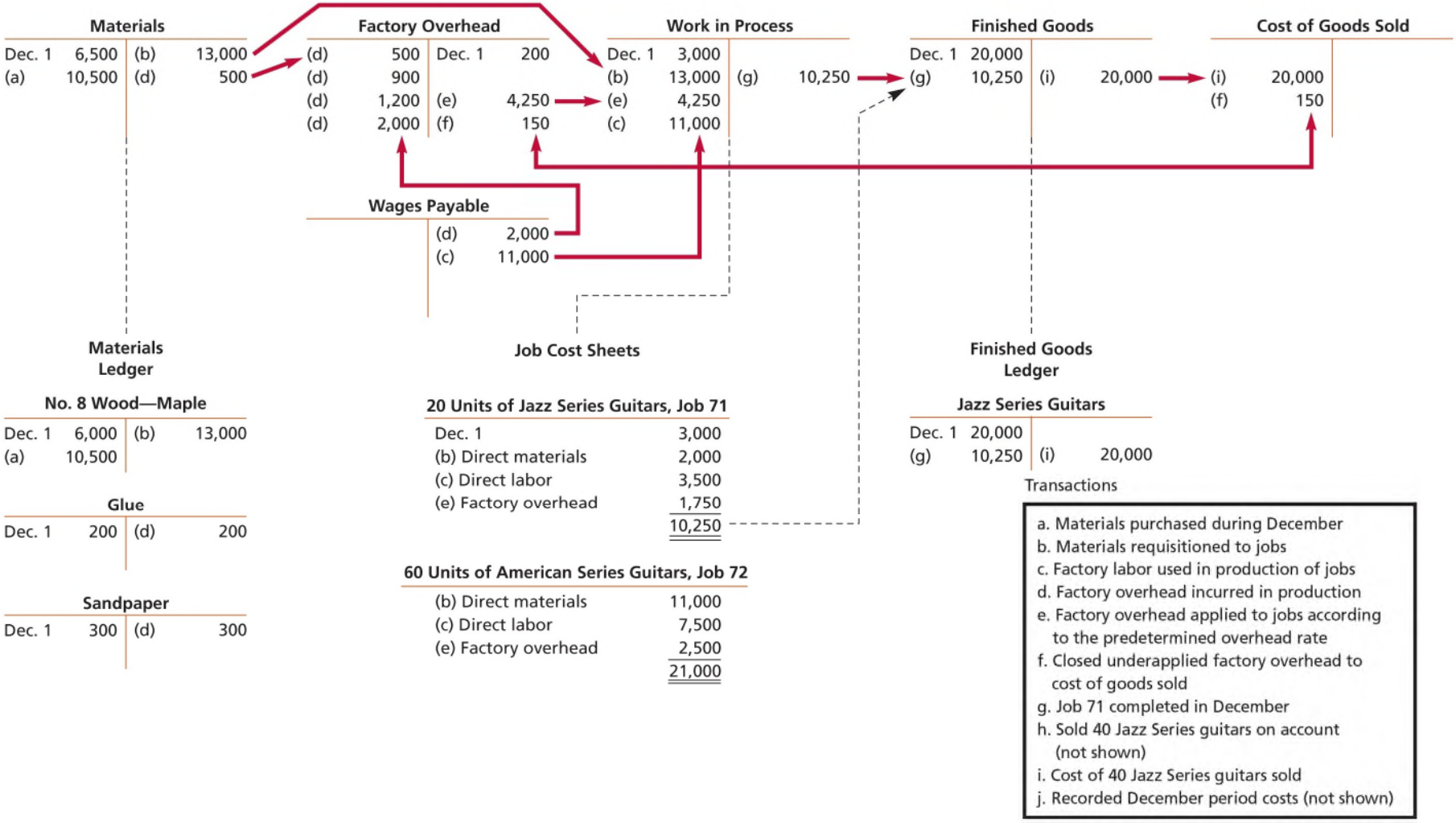
- **Period costs** are used in generating revenue during the current period but are not involved in the manufacturing process:
  - Period costs are recorded as expenses of the current period as either selling or administrative expenses:
    - Selling expenses are incurred in marketing and delivering the sold product to customers.
    - Administrative expenses are incurred in managing the company, but are not related to the manufacturing or selling functions.

Period Costs
(slide 2 of 2)

- During December, Legend Guitars recorded the following selling and administrative expenses:

Sales Salaries Expense	2,000	
Office Salaries Expense	1,500	
Salaries Payable		3,500
Recorded December period costs.		

Flow of Manufacturing Costs for Legend Guitars



Summary of Cost Flows for Legend Guitars

- The previous slide shows the cost flows through the manufacturing accounts of Legend Guitars for December.
  - The balances of Materials, Work in Process, and Finished Goods are supported by their subsidiary ledgers.

Controlling Account	Balance and Total of Related Subsidiary Ledger
Materials	$ 3,500
Work in Process	21,000
Finished Goods	10,250

Income Statement of Legend Guitars

Legend Guitars
Income Statement
For the Month Ended December 31, 20Y8

Sales		$34,000
Cost of goods sold		20,150*
Gross profit		$13,850
Selling and administrative expenses:		
Sales salaries expense	$2,000	
Office salaries expense	1,500	
Total selling and administrative expenses		3,500
Income from operations		$10,350

*$20,150 = ($500 × 40 guitars) + $150 underapplied factory overhead

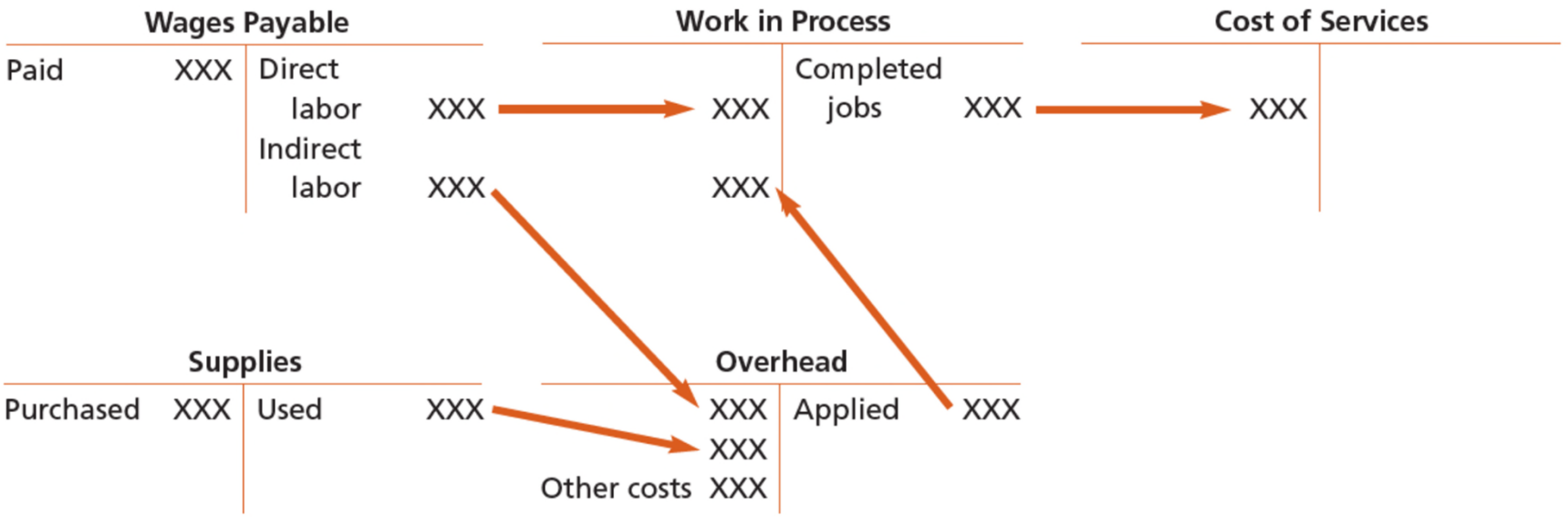
Job Order Cost Systems for Service Businesses
(slide 1 of 2)

- A job order cost accounting system may be used by a professional service business:
  - For example, an advertising agency, an attorney, and a physician each provide services to individual customers, clients, or patients. In such cases, the customer, client, or patient can be viewed as a job for which costs are accumulated.

Job Order Cost Systems for Service Businesses
(slide 2 of 2)

- The primary product costs for a service business are direct labor and overhead costs. Any materials or supplies are insignificant and are included as part of overhead costs.
- Like a manufacturing business, direct labor and overhead costs of rendering services to clients are accumulated in a work in process account.
- When the job is completed and the client billed, the costs are transferred to a cost of services account.
  - Cost of Services is similar to the cost of merchandise sold account for a merchandising business or the cost of goods sold account for a manufacturing business.
- A finished goods account and related finished goods ledger are not necessary.
  - This is because the revenues for the services are recorded only after the services are provided.

Flow of Costs Through a Service Business



Check Up Corner

Job Order Costing for a Service Business

(slide 1 of 2)

The Mad-Fly Agency provides consulting services to a variety of clients across the country. The agency accumulates costs for each consulting project on the basis of direct labor costs and allocated overhead costs. Mad-Fly's estimated direct labor and overhead costs for the year are as follows:

Direct labor hours (professional staff)	20,000 hours
Hourly rate for professional staff	$180 per hour
Estimated total overhead costs	$1,200,000

Mad-Fly allocates overhead costs to individual jobs based on the total estimated direct labor hours of its professional services staff.

A. Determine Mad-Fly's estimated predetermined overhead rate for the year.

B. Mad-Fly started and completed a consulting job for MT Industries during the year (Job 402). The job required 200 direct labor hours from the agency's professional services staff. Determine the cost of the MT Industries job (Job 402).

Check Up Corner

Job Order Costing for a Service Business
(slide 2 of 2)

Solution:

A. $$\text{Predetermined Overhead Rate} = \frac{\text{Estimated Total Overhead Costs}}{\text{Estimated Activity Base}} = \frac{\$1{,}200{,}000}{20{,}000 \text{ direct labor hours}} = \$60 \text{ per direct labor hour}$$

The primary costs for a service business are direct labor and overhead costs.

B.

Direct Labor Hours	×	Hourly Rate for Professional Staff	=	Direct Labor Cost	
200	×	$180	=	$36,000	Direct Labor Cost (Job 402)

Direct Labor Hours	×	Predetermined Overhead Rate	=	Overhead Applied	
200	×	$60	=	$12,000	Overhead Applied (Job 402)

A predetermined overhead rate is used to allocate overhead costs to individual jobs.

	Job 402
Direct labor	$36,000
Overhead applied	12,000
Total cost of services	$48,000

When a job is completed and the client is billed, the costs are transferred to a cost of services account.

Job Order Costing for Decision Making
(slide 1 of 2)

- A job order cost accounting system accumulates and records product costs by jobs. The resulting total and unit product costs can be compared to similar jobs, compared over time, or compared to expected costs.
  - In this way, a job order cost system can be used by managers for cost evaluation and control.

Comparing Data from Job Cost Sheets

Job 54
Item: 40 Jazz Series guitars

	Materials Quantity (board feet)	Materials Price	Materials Amount
Direct materials:			
No. 8 Wood—Maple	400	$10.00	$4,000
Direct materials per guitar			$ 100*

*$4,000 ÷ 40

Job 63
Item: 40 Jazz Series guitars

	Materials Quantity (board feet)	Materials Price	Materials Amount
Direct materials:			
No. 8 Wood—Maple	500	$10.00	$5,000
Direct materials per guitar			$ 125*

*$5,000 ÷ 40

Job Order Costing for Decision Making
(slide 2 of 2)

- The job cost sheets can be analyzed for possible reasons for the increased materials cost for Job 63.
- Because the materials price did not change ($10 per board foot), the increased materials cost must be related to wood consumption.
- Thus, Legend Guitars should conduct an investigation to determine the cause of the extra 100 board feet used for Job 63.