CHAPTER 23

Budgetary Planning

ASSIGNMENT CLASSIFICATION TABLE

Study Objectives	Questions	Brief Exercises	Exercises	A Problems	B Problems
1. Indicate the benefits of budgeting.	1, 2, 4		1		
2. State the essentials of effective budgeting.	3, 5, 6, 7, 8		1		
3. Identify the budgets that comprise the master budget.	9, 10, 11, 12, 13, 14, 15, 16	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	1A, 2A, 3A	1B, 2B, 3B
4. Describe the sources for preparing the budgeted income statement.	17, 18	8	11	1A, 2A, 3A, 6A	1B, 2B, 3B
5. Explain the principal sections of a cash budget.	19, 20	9	12, 13, 14 15, 16	4A, 6A	4B
6. Indicate the applicability of budgeting in non-manufacturing companies.	21, 22	10	3, 15, 16, 17	5A	5B

ASSIGNMENT CHARACTERISTICS TABLE

Problem Number	Description	Difficulty Level	Time Allotted (min.)
1A	Prepare budgeted income statement and supporting budgets.	Simple	30–40
2A	Prepare sales, production, direct materials, direct labor, and income statement budgets.	Simple	40–50
3A	Prepare sales and production budgets and compute cost per unit under two plans.	Moderate	30–40
4A	Prepare cash budget for two months.	Moderate	30–40
5A	Prepare purchases and income statement budgets for a merchandiser.	Simple	30–40
6A	Prepare budgeted income statement and balance sheet.	Complex	40–50
1B	Prepare budgeted income statement and supporting budgets.	Simple	30–40
2B	Prepare sales, production, direct materials, direct labor, and income statement budgets.	Simple	40–50
3B	Prepare sales and production budgets and compute cost per unit under two plans.	Moderate	30–40
4B	Prepare cash budget for two months.	Moderate	30–40
5B	Prepare purchases and income statement budgets for a merchandiser.	Simple	30–40

Correlation Chart between Bloom's Taxonomy, Study Objectives and End-of-Chapter Exercises and Problems

Study Objective	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
1. Indicate the benefits of budgeting.		Q23-1 Q23-4 Q23-2 E23-1				
2. State the essentials of effective budgeting.		Q23-3 Q23-7 Q23-5 Q23-8 Q23-6 E23-1				
3. Identify the budgets that comprise the master budget.		Q23-9 Q23-10 Q23-11 E23-1	Q23-12 BE23-6 E23-9 Q23-13 BE23-7 E23-10 Q23-14 E23-2 E23-11 Q23-15 E23-3 P23-1A Q23-16 E23-4 P23-2A BE23-2 E23-5 P23-1B BE23-3 E23-6 P23-2B BE23-4 E23-7 BE23-5 E23-8	BE23-1		P23-3A P23-3B
4. Describe the sources for preparing the budgeted income statement.		Q23-18	Q23-17 P23-1A P23-1B BE23-8 P23-2A P23-2B E23-11 P23-6A			P23-3A P23-3B
5. Explain the principal sections of a cash budget.	Q23-19		Q23-20 E23-14 P23-6A BE23-9 E23-15 P23-4B E23-12 E23-16 E23-13 P23-4A			
6. Indicate the applicability of budgeting in non-manufacturing companies.	Q23-21 Q23-22		BE23-10 E23-17 E23-3 P23-5A E23-15 P23-5B E23-16			
Broadening Your Perspective		Real-World Focus	All About You	Manag. Analysis Communication Real-World Focus	Decision Making Across the Organization Manag. Analysis Communication	Ethics Case Decision Making Across the Organization All About You

ANSWERS TO QUESTIONS

1. (a) A budget is a formal written statement of management's plans for a specified future time period, expressed in financial terms.
(b) A budget aids management in planning because it represents the primary means of communicating agreed-upon objectives throughout the organization. Once adopted, a budget becomes an important basis for evaluating performance.

2. The primary benefits of budgeting are:
(1) It requires all levels of management to plan ahead and to formalize goals on a recurring basis.
(2) It provides definite objectives for evaluating performance at each level of responsibility.
(3) It creates an early warning system for potential problems, so that management can make changes before things get out of hand.
(4) It facilitates the coordination of activities within the business by correlating the goals of each segment with overall company objectives.
(5) It results in greater management awareness of the entity's overall operations and the impact of external factors such as economic trends.
(6) It motivates personnel throughout the organization to meet planned objectives.

3. The essentials of effective budgeting are: (1) a sound organizational structure, (2) research and analysis, and (3) acceptance by all levels of management.

4. (a) Disagree. Accounting information makes major contributions to the budgeting process. Accounting provides the starting point of budgeting by providing historical data on revenues, costs, and expenses. Accounting becomes the translator of the budget and communicates the budget to all areas of responsibility. It also prepares periodic budget reports that compare actual results with planned objectives and provide a basis for evaluating performance.
(b) The budget itself, and the administration of the budget, are the responsibility of management.

5. The budget period should be long enough to provide an attainable goal under normal business conditions. The budget period should minimize the impact of seasonal and cyclical business fluctuations, but it should not be so long that reliable estimates are impossible. The most common budget period is one year.

6. Disagree. Long-range planning usually encompasses a period of at least five years. It involves the selection of strategies to achieve long-term goals and the development of policies and plans to implement the strategies. In addition, long-range planning reports contain considerably less detail than budget reports.

7. Participative budgeting involves the use of a "bottom to top" approach, which requires input from lower level management during the budgeting process so as to involve employees from various levels and areas within the company. The potential benefits of this approach are lower level managers have more detailed knowledge of the specifics of their job, and thus should be able to provide better budgetary estimates. In addition, by involving lower level managers in the process, it is more likely that they will perceive the budget as being fair and reasonable. One disadvantage of participative budgeting is that it takes more time, and thus costs more. Another disadvantage of participative budgeting is that it may enable managers to game the system through such practices as budgetary slack.

8. Budgetary slack is the amount by which a manager intentionally underestimates budgeted revenues or overestimates budgeted expenses in order to make it easier to achieve budgetary goals. Managers may have an incentive to create budgetary slack in order to increase the likelihood of receiving a bonus, or decrease the likelihood of losing their job.

9. A master budget is a set of interrelated budgets that constitutes a plan of action for a specified time period. The master budget is developed within the framework of a sales forecast.

10. The sales budget is the starting point in preparing the master budget. An inaccurate sales budget may adversely affect net income. An overly optimistic sales budget may result in excessive inventories and a very conservative sales budget may lead to inventory shortages.

11. The statement is false. The production budget only shows the units that must be produced to meet anticipated sales and ending inventory requirements.

12. The required units of production are 165,000 (160,000 + 20,000 = 180,000 – 15,000 = 165,000).

13. The desired ending direct materials units are 19,000 (64,000 + 7,000 = 71,000 – 52,000 = 19,000).

14. Total budgeted direct labor costs are $640,000 (80,000 X .5 X $16 = $640,000).

15. (a) Manufacturing overhead rate based on direct labor cost is 60% [$198,000 + $162,000 = $360,000; $360,000 ÷ (160,000 X 1/4 X $15/hr.) = 60%].
(b) Manufacturing overhead rate per direct labor hour is $9 ($360,000 ÷ 40,000).

16. The first quarter budgeted selling and administrative expenses are $70,000 [(10% X $200,000) + $50,000]. The second quarter total is $75,000 [(10% X $250,000) + $50,000].

17. The budgeted cost per unit of product is $48 ($10 + $20 + $18). Gross profit per unit is $21 ($69 – $48). Total budgeted gross profit is $525,000 (25,000 X $21).

18. The supporting schedules are the budgets for sales, direct materials, direct labor, and manufacturing overhead.

19. The three sections of a cash budget are: (1) cash receipts, (2) cash disbursements, and (3) financing. The cash budget also shows the beginning and ending cash balances.

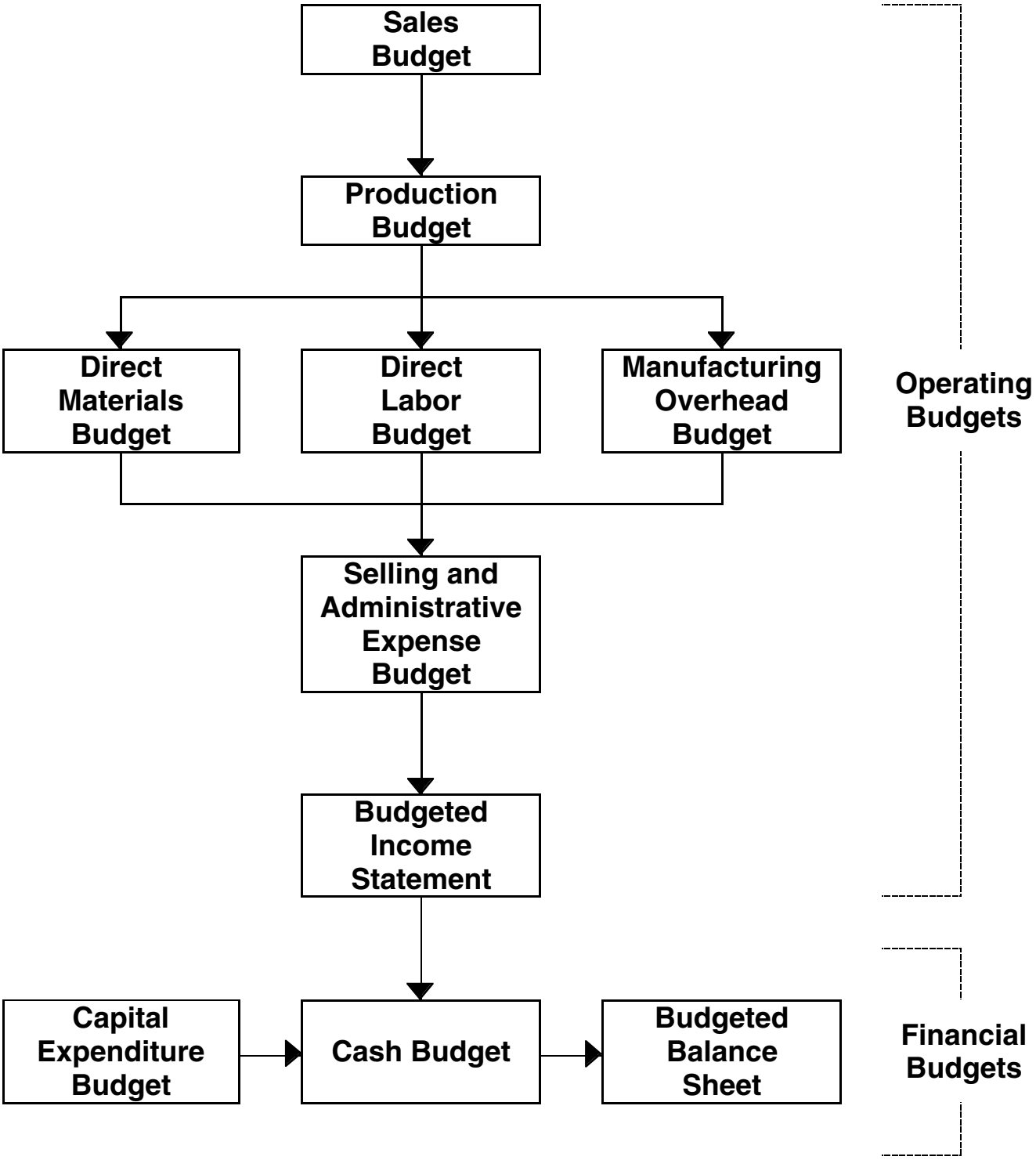
20. Cash collections are:
January—$500,000 X 45% = $225,000.
February—$500,000 X 50% = $250,000.
March—$500,000 X 5% = $25,000.

21. The formula is: Budgeted cost of goods sold plus desired ending merchandise inventory minus beginning merchandise inventory equals required merchandise purchases.

22. In a service enterprise, expected revenues can be obtained from expected output or expected input. The former is based on anticipated billings of clients for services rendered. The latter is based on expected billable time of the professional staff.

SOLUTIONS TO BRIEF EXERCISES

BRIEF EXERCISE 23-1



BRIEF EXERCISE 23-2

GOODY COMPANY
Sales Budget
For the Year Ending December 31, 2008

	Quarter				
	1	2	3	4	Year
Expected unit sales	10,000	12,000	14,000	18,000	54,000
Unit selling price	X $80	X $80	X $80	X $80	X $80
Total sales	$800,000	$960,000	$1,120,000	$1,440,000	$4,320,000

BRIEF EXERCISE 23-3

GOODY COMPANY
Production Budget
For the Six Months Ending June 30, 2008

	Quarter		Six Months
	1	2	
Expected unit sales	10,000	12,000	
Add: Desired ending finished goods	2,400[a]	2,800[c]	
Total required units	12,400	14,800	
Less: Beginning finished goods inventory	2,000[b]	2,400	
Required production units	10,400	12,400	22,800

[a] 12,000 X .20 [b] 10,000 X .20 [c] 14,000 X .20

BRIEF EXERCISE 23-4

ORTIZ COMPANY
Direct Materials Budget
For the Month Ending January 31, 2009

Units to be produced	4,000
Direct materials per unit	X 2
Total pounds required for production	8,000
Add: Desired ending inventory (20% X 5,500 X 2)	2,200
Total materials required	10,200
Less: Beginning materials inventory	1,600
Direct materials purchases	8,600
Cost per pound	X $6
Total cost of direct materials purchases	$51,600

BRIEF EXERCISE 23-5

EVERLY COMPANY
Direct Labor Budget
For the Six Months Ending June 30, 2008

	Quarter		Six
	1	2	Months
Units to be produced	5,000	6,000	
Direct labor time (hours) per unit	X 1.5	X 1.5	
Total required direct labor hours	7,500	9,000	
Direct labor cost per hour	X $14	X $14	
Total direct labor cost	$105,000	$126,000	$231,000

BRIEF EXERCISE 23-6

JUSTUS INC.
Manufacturing Overhead Budget
For the Year Ending December 31, 2008

	Quarter				
	1	2	3	4	Year
Variable costs	$20,000	$24,000	$28,000	$32,000	$104,000
Fixed costs	35,000	35,000	35,000	35,000	140,000
Total manufacturing overhead	$55,000	$59,000	$63,000	$67,000	$244,000

BRIEF EXERCISE 23-7

MIZE COMPANY
Selling and Administrative Expense Budget
For the Year Ending December 31, 2008

	Quarter				
	1	2	3	4	Year
Variable expenses	$25,000	$30,000	$35,000	$40,000	$130,000
Fixed expenses	40,000	40,000	40,000	40,000	160,000
Total selling and administrative expenses	$65,000	$70,000	$75,000	$80,000	$290,000

BRIEF EXERCISE 23-8

PERINE COMPANY
Budgeted Income Statement
For the Year Ending December 31, 2008

Sales	$2,000,000
Cost of goods sold (50,000 X $22)	1,100,000
Gross profit	900,000
Selling and administrative expenses	300,000
Income before income taxes	600,000
Income tax expense	150,000
Net income	$ 450,000

BRIEF EXERCISE 23-9

	Collections from Customers		
Credit Sales	**January**	**February**	**March**
January, $200,000	$140,000	$ 60,000	
February, $260,000		182,000	$ 78,000
March, $310,000			217,000
	$140,000	$242,000	$295,000

BRIEF EXERCISE 23-10

Budgeted cost of goods sold ($400,000 X 60%)	$240,000
Add: Desired ending inventory ($475,000 X 60% X 20%)	57,000
Total inventory required	297,000
Less: Beginning inventory ($400,000 X 60% X 20%)	48,000
Required merchandise purchases for April	$249,000

SOLUTIONS TO EXERCISES

EXERCISE 23-1

MEMO

To Jack Bruno

From: Student

Re: Budgeting

I am glad Black Rose Company is considering preparing a formal budget. There are many benefits derived from budgeting, as I will discuss later in this memo.

A budget is a formal written statement of management's plans for a specified future time period, expressed in financial terms. The master budget generally consists of operating budgets such as the sales budget, production budget, direct materials budget, direct labor budget, manufacturing overhead budget, selling and administrative expense budget, and budgeted income statement; and financial budgets such as the capital expenditure budget, cash budget, and budgeted balance sheet.

The primary benefits of budgeting are:

1. **It requires all levels of management to plan ahead and formalize their goals.**
2. **It provides definite objectives for evaluating performance.**
3. **It creates an early warning system for potential problems.**
4. **It facilitates the coordination of activities within the business.**
5. **It results in greater management awareness of the entity's overall operations.**
6. **It motivates personnel throughout the organization to meet planned objectives.**

In order maximize these benefits, it is essential that budgeting takes place within a sound organizational structure, so authority and responsibility for all phases of operations are clearly defined. Also, the budget should be based on research and analysis that results in realistic goals. Finally, the effectiveness of a budget program is directly related to its acceptance by all levels of management.

If you want further explanation of any of these assumptions, please contact me.

ZELLER ELECTRONICS INC.
Sales Budget
For the Six Months Ending June 30, 2008

	Quarter 1			Quarter 2			Six Months		
Product	Units	Selling Price	Total Sales	Units	Selling Price	Total Sales	Units	Selling Price	Total Sales
XQ-103	20,000	$12	$240,000	25,000	$12	$300,000	45,000	$12	$ 540,000
XQ-104	12,000	25	300,000	15,000	25	375,000	27,000	25	675,000
Totals	32,000		$540,000	40,000		$675,000	72,000		$1,215,000

ROCHE AND YOUNG, CPAs
Sales Revenue Budget
For the Year Ending December 31, 2008

	Quarter 1			Quarter 2			Quarter 3			Quarter 4		
Dept.	Billable Hours	Billable Rate	Total Rev.	Billable Hours	Billable Rate	Total Rev.	Billable Hours	Billable Rate	Total Rev.	Billable Hours	Billable Rate	Total Rev.
Auditing	2,200	$ 80	$176,000	1,600	$ 80	128,000	2,000	$ 80	$160,000	2,400	$ 80	$192,000
Tax	3,000	90	270,000	2,400	90	216,000	2,000	90	180,000	2,500	90	225,000
Consulting	1,500	100	150,000	1,500	100	150,000	1,500	100	150,000	1,500	100	150,000
Totals			$596,000			$494,000			$490,000			$567,000

Dept.	Year Billable Hours	Year Billable Rate	Year Total Rev.
Auditing	8,200[a]	$ 80	$ 656,000
Tax	9,900[b]	90	891,000
Consulting	6,000[c]	100	600,000
Totals			$2,147,000

[a] 2,200 + 1,600 + 2,000 + 2,400
[b] 3,000 + 2,400 + 2,000 + 2,500
[c] 1,500 X 4

EXERCISE 23-4

TURNEY COMPANY
Production Budget
For the Year Ending December 31, 2008

Product HD-240

	Quarter				
	1	2	3	4	Year
Expected unit sales	5,000	7,000	8,000	10,000	
Add: Desired ending finished goods units[1]	3,500	4,000	5,000	3,250 [2]	
Total required units	8,500	11,000	13,000	13,250	
Less: Beginning finished goods units	2,500	3,500	4,000	5,000	
Required production units	6,000	7,500	9,000	8,250	30,750

[1] 50% of next quarter's sales.
[2] 50% X (5,000 X 130%).

EXERCISE 23-5

MORENO INDUSTRIES
Direct Materials Purchases Budget
For the Quarter Ending March 31, 2009

	January	February	March
Units to be produced	10,000	8,000	5,000
Direct materials per unit	X 3	X 3	X 3
Total pounds needed for production	30,000	24,000	15,000
Add: Desired ending direct materials (pounds)*	7,200	4,500	3,600
Total materials required	37,200	28,500	18,600
Less: Beginning direct materials (pounds)	9,000	7,200	4,500
Direct materials purchases	28,200	21,300	14,100
Cost per pound	X $2	X $2	X $2
Total cost of direct materials purchases	$56,400	$42,600	$28,200

*30% of next month's production needs.

EXERCISE 23-6

(a)

BATISTA COMPANY
Production Budget
For the Six Months Ending June 30, 2009

	Quarter		Six
	1	2	Months
Expected unit sales	5,000	6,000	
Add: Desired ending finished goods units	1,800 (1)	2,100 (2)	
Total required units	6,800	8,100	
Less: Beginning finished goods units	1,500 (3)	1,800	
Required production units	5,300	6,300	11,600

(1) 30% X 6,000.
(2) 30% X 7,000.
(3) 30% X 5,000.

EXERCISE 23-6 (Continued)

(b)

BATISTA COMPANY
Direct Materials Budget
For the Six Months Ending June 30, 2009

	Quarter		Six
	1	2	Months
Units to be produced	5,300	6,300	
Direct materials per unit	X 3	X 3	
Total pounds needed for production	15,900	18,900	
Add: Desired ending direct materials (pounds)	9,450 (1)	10,875 (2)	
Total materials required	25,350	29,775	
Less: Beginning direct materials (pounds)	7,950 (3)	9,450	
Direct materials purchases	17,400	20,325	
Cost per pound	X $4	X $4	
Total cost of direct materials Purchases	$69,600	$81,300	$150,900

(1) 50% X 18,900.
(2) 7,250 X (3 X 50%).
(3) 50% X 15,900.

EXERCISE 23-7

NEELY, INC.
Direct Labor Budget
For the Year Ending December 31, 2008

	Quarter				
	1	2	3	4	Year
Units to be produced	20,000	25,000	35,000	30,000	
Direct labor time (hours) per unit	X 1.6	X 1.6	X 1.6	X 1.6	
Total required direct labor hours	32,000	40,000	56,000	48,000	
Direct labor cost per hour	X $15	X $15	X $16	X $16	
Total direct labor cost	$480,000	$600,000	$896,000	$768,000	$2,744,000

EXERCISE 23-8

HARDIN COMPANY
Manufacturing Overhead Budget
For the Year Ending December 31, 2008

	Quarter				
	1	2	3	4	Year
Variable costs					
Indirect materials ($.70/hour)	$10,500	$ 12,600	$ 14,700	$ 16,800	$ 54,600
Indirect labor ($1.20/hour)	18,000	21,600	25,200	28,800	93,600
Maintenance ($.50/hour)	7,500	9,000	10,500	12,000	39,000
Total variable	36,000	43,200	50,400	57,600	187,200
Fixed costs					
Supervisory salaries	35,000	35,000	35,000	35,000	140,000
Depreciation	16,000	16,000	16,000	16,000	64,000
Maintenance	12,000	12,000	12,000	12,000	48,000
Total fixed	63,000	63,000	63,000	63,000	252,000
Total manufacturing overhead	$99,000	$106,200	$113,400	$120,600	$439,200
Direct labor hours	15,000	18,000	21,000	24,000	78,000
Manufacturing overhead rate per direct labor hour ($439,200 ÷ 78,000)					$5.63

EXERCISE 23-9

EDINGTON COMPANY
Selling and Administrative Expense Budget
For the Six Months Ending June 30, 2008

	Quarter		Six
	1	2	Months
Budgeted sales in units	20,000	22,000	
Variable expenses (1)			
Sales commissions	$20,000	$22,000	$42,000
Delivery expense	8,000	8,800	16,800
Advertising	12,000	13,200	25,200
Total variable	40,000	44,000	84,000

EXERCISE 23-9 (Continued)

EDINGTON COMPANY
Selling and Administrative Expense Budget (Continued)
For the Six Months Ending June 30, 2008

	Quarter		Six
	1	2	Months
Fixed expenses			
Sales salaries	10,000	10,000	20,000
Office salaries	6,000	6,000	12,000
Depreciation	4,200	4,200	8,400
Insurance	1,500	1,500	3,000
Utilities	800	800	1,600
Repairs expense	600	600	1,200
Total fixed	23,100	23,100	46,200
Total selling and administrative expenses	$63,100	$67,100	$130,200

(1) Variable costs per dollar of sales are: Sales commissions $.05, Delivery expense $.02, and Advertising $.03.

EXERCISE 23-10

(a)

TYSON CHANDLER COMPANY
Production Budget
For the Two Months Ending February 28, 2008

	January	February
Expected unit sales	10,000	12,000
Add: desired ending finished goods inventory	3,000*	3,250*
Total required units	13,000	15,250
Less: beginning finished goods inventory	2,500**	3,000
Required production units	10,500	12,250

*25% X next month's expected sales
**25% X 10,000

EXERCISE 23-10 (Continued)

(b)

TYSON CHANDLER COMPANY
Direct Materials Budget
For the Year Ending January 31, 2008

	January
Units to be produced	10,500
Direct material pounds per unit	X 2
Total pounds needed for production	21,000
Add: desired pounds in ending materials inventory	9,800*
Total materials required	30,800
Less: beginning direct materials (pounds)	8,400**
Direct materials purchases	22,400
Cost per pound	X $3
Total cost of direct materials purchases	$67,200

*(12,250 X 2) X 40% **(10,500 X 2) X 40%

EXERCISE 23-11

(a)

FUQUA COMPANY
Computation of Cost of Goods Sold
For the Year Ending December 31, 2008

Cost of one unit of finished goods:	
Direct materials (2 X $5)	$10
Direct labor (3 X $12)	36
Manufacturing overhead (3 X $6)	18
Total	$64

30,000 units X $64 = $1,920,000.

EXERCISE 23-11 (Continued)

(b)

FOQUA COMPANY
Budgeted Income Statement
For the Year Ending December 31, 2008

Sales (30,000 X $80)	$2,400,000
Cost of goods sold (see part (a))	1,920,000
Gross profit	480,000
Selling and administrative expenses	200,000
Income before income taxes	280,000
Income tax expense ($280,000 X 30%)	84,000
Net income	$ 196,000

EXERCISE 23-12

GARZA COMPANY
Cash Budget
For the Two Months Ending February 28, 2008

	January	February
Beginning cash balance	$ 46,000	$ 26,000
Add: Receipts		
Collections from customers	85,000	150,000
Sale of marketable securities	10,000	0
Total receipts	95,000	150,000
Total available cash	141,000	176,000
Less: Disbursements		
Direct materials	50,000	70,000
Direct labor	30,000	45,000
Manufacturing overhead	20,000	24,000
Selling and administrative expenses	15,000	20,000
Total disbursements	115,000	159,000
Excess (deficiency) of available cash over cash disbursements	26,000	17,000
Financing		
Borrowings	0	3,000
Repayments	0	0
Ending cash balance	$ 26,000	$ 20,000

EXERCISE 23-13

PINK MARTINI CORPORATION
Cash Budget
For the Quarter Ended March 31, 2008

Beginning cash balance	$ 31,000
Add: Receipts	
Collections from customers	180,000
Sale of equipment	3,500
Total receipts	183,500
Total available cash	214,500
Less: Disbursements	
Direct materials	41,000
Direct labor	70,000
Manufacturing overhead	35,000
Selling and administrative expense	45,000
Purchase of securities	12,000
Total disbursements	203,000
Excess of available cash over disbursements	11,500
Financing	
Borrowings	13,500
Repayments	–0–
Ending cash balance	$ 25,000

EXERCISE 23-14

(a)

NIU COMPANY
Expected Collections from Customers

	March
March cash sales (40% X $270,000)	$108,000
Collection of March credit sales [(60% X $270,000) X 10%]	16,200
Collection of February credit sales [(60% X $220,000) X 50%]	66,000
Collection of January credit sales [(60% X $200,000) X 36%]	43,200
Total collections	$233,400

(b)

NIU COMPANY
Expected Payments for Direct Materials

	March
March cash purchases (50% X $41,000)	$20,500
Payment of March credit purchases [(50% X $41,000) X 40%]	8,200
Payment of February credit purchases [(50% X $35,000) X 60%]	10,500
Total payments	$39,200

EXERCISE 23-15

(a) (1)

ENVIRONMENTAL LANDSCAPING INC.
Schedule of Expected Collections From Clients
For the Quarter Ending March 31, 2008

	January	February	March	Quarter
November ($90,000)	$ 9,000			$ 9,000
December ($80,000)	24,000	$ 8,000		32,000
January ($100,000)	60,000	30,000	$ 10,000	100,000
February ($120,000)		72,000	36,000	108,000
March ($130,000).....			78,000	78,000
Total collections	$93,000	$110,000	$124,000	$327,000

(2)

ENVIRONMENTAL LANDSCAPING INC.
Schedule of Expected Payments for Landscaping Supplies
For the Quarter Ending March 31, 2008

	January	February	March	Quarter
December ($14,000)	$ 8,400			$ 8,400
January ($12,000)	4,800	$ 7,200		12,000
February ($15,000).....		6,000	$ 9,000	15,000
March ($18,000)			7,200	7,200
Total payments.....	$13,200	$13,200	$16,200	$42,600

(b) (1) Accounts receivable at March 31, 2008: ($120,000 X 10%) + ($130,000 X 40%) = $64,000

(2) Accounts payable at March 31, 2008: ($18,000 X 60%) = $10,800

EXERCISE 23-16

DONNEGAL DENTAL CLINIC
Cash Budget
For the Two Quarters Ending June 30, 2008

	1st Quarter	2nd Quarter
Beginning cash balance	$ 30,000	$ 25,000
Add: Receipts		
Collections from clients	230,000	380,000
Sale of equipment	15,000	0
Investment interest	0	5,000
Total receipts	245,000	385,000
Total cash available	275,000	410,000
Less: Disbursements		
Professional salaries	140,000	140,000
Overhead costs	75,000	100,000
Selling and administrative costs	47,000*	67,000**
Equipment purchase	0	50,000
Payment of income taxes	0	4,000
Total disbursements	262,000	361,000
Excess (deficiency) of cash available over cash disbursements	13,000	49,000
Financing		
Borrowings	12,000	0
Repayments	0	12,300
Ending cash balance	$ 25,000	$ 36,700

*$50,000 – $3,000
**$70,000 – $3,000

EXERCISE 23-17

(a)

DALBY STORES
Merchandise Purchases Budget
For the Month Ending June 30, 2008

Budgeted cost of goods sold ($500,000 X 70%)	$350,000
Add: Desired ending merchandise inventory ($600,000 X 70% X 40%)	168,000
Total	518,000
Less: Beginning merchandise inventory ($350,000 X 40%)	140,000
Required merchandise purchases	$378,000

(b)

DALBY STORES
Budgeted Income Statement
For the Month Ending June 30, 2008

Sales	$500,000
Cost of goods sold (70% X $500,000)	350,000
Gross profit	$150,000

SOLUTIONS TO PROBLEMS

PROBLEM 23-1A

DANNER FARM SUPPLY COMPANY
Sales Budget
For the Six Months Ending June 30, 2009

	Quarter		Six
	1	2	Months
Expected unit sales	28,000	42,000	70,000
Unit selling price	X $60	X $60	X $60
Total sales	$1,680,000	$2,520,000	$4,200,000

DANNER FARM SUPPLY COMPANY
Production Budget
For the Six Months Ending June 30, 2009

	Quarter		Six
	1	2	Months
Expected unit sales	28,000	42,000	
Add: Desired ending finished goods units	12,000	18,000	
Total required units	40,000	60,000	
Less: Beginning finished goods units	8,000	12,000	
Required production units	32,000	48,000	80,000

PROBLEM 23-1A (Continued)

DANNER FARM SUPPLY COMPANY
Direct Materials Budget—Gumm
For the Six Months Ending June 30, 2009

	Quarter		Six Months
	1	2	
Units to be produced	32,000	48,000	
Direct materials per unit	X 4	X 4	
Total pounds needed for production	128,000	192,000	
Add: Desired ending direct materials (pounds)	10,000	13,000	
Total materials required	138,000	205,000	
Less: Beginning direct materials (pounds)	9,000	10,000	
Direct materials purchases	129,000	195,000	
Cost per pound	X $4	X $4	
Total cost of direct materials purchases	$516,000	$780,000	$1,296,000

DANNER FARM SUPPLY COMPANY
Direct Labor Budget
For the Six Months Ending June 30, 2009

	Quarter		Six Months
	1	2	
Units to be produced	32,000	48,000	
Direct labor time (hours) per unit	X 1/4	X 1/4	
Total required direct labor hours	8,000	12,000	
Direct labor cost per hour	X $14	X $14	
Total direct labor cost	$112,000	$168,000	$280,000

PROBLEM 23-1A (Continued)

DANNER FARM SUPPLY COMPANY
Selling and Administrative Expense Budget
For the Six Months Ending June 30, 2009

	Quarter		Six
	1	2	Months
Budgeted sales in units	28,000	42,000	70,000
Variable (.15 X sales)	$252,000	$378,000	$630,000
Fixed	175,000	175,000	350,000
Total	$427,000	$553,000	$980,000

DANNER FARM SUPPLY COMPANY
Budgeted Income Statement
For the Six Months Ending June 30, 2009

Sales	$4,200,000
Cost of goods sold (70,000 X $33.75)*	2,362,500
Gross profit	1,837,500
Selling and administrative expenses	980,000
Income from operations	857,500
Income tax expense (30%)	257,250
Net income	$ 600,250

*Cost Per Bag

Cost Element	Quantity	Unit Cost	Total
Direct materials			
Gumm	4 pounds	$ 4.00	$16.00
Tarr	6 pounds	1.50	9.00
Direct labor	1/4 hour	14.00	3.50
Manufacturing overhead (150% of direct labor cost)			5.25
Total			$33.75

PROBLEM 23-2A

(a)

LARUSSA INC.
Sales Budget
For the Year Ending December 31, 2009

	JB 50	JB 60	Total
Expected unit sales	400,000	200,000	
Unit selling price	X $20	X $25	
Total sales	$8,000,000	$5,000,000	$13,000,000

(b)

LARUSSA INC.
Production Budget
For the Year Ending December 31, 2009

	JB 50	JB 60	Total
Expected unit sales	400,000	200,000	
Add: Desired ending finished goods units	25,000	15,000	
Total required units	425,000	215,000	
Less: Beginning finished goods units	30,000	10,000	
Required production units	395,000	205,000	600,000

PROBLEM 23-2A (Continued)

(c)

LARUSSA INC.
Direct Materials Budget
For the Year Ending December 31, 2009

	JB 50	JB 60	Total
Units to be produced	395,000	205,000	
Direct materials per unit	X 2	X 3	
Total pounds needed for production	790,000	615,000	
Add: Desired ending direct materials (pounds)	30,000	15,000	
Total materials required	820,000	630,000	
Less: Beginning direct materials (pounds)	40,000	10,000	
Direct materials purchases	780,000	620,000	
Cost per pound	X $3	X $4	
Total cost of direct materials purchases	$2,340,000	$2,480,000	$4,820,000

(d)

LARUSSA INC.
Direct Labor Budget
For the Year Ending December 31, 2009

	JB 50	JB 60	Total
Units to be produced	395,000	205,000	
Direct labor time (hours) per unit	X .4	X .6	
Total required direct labor hours	158,000	123,000	
Direct labor cost per hour	X $12	X $12	
Total direct labor cost	$1,896,000	$1,476,000	$3,372,000

(e)

LARUSSA INC.
Budgeted Income Statement
For the Year Ending December 31, 2009

	JB 50	JB 60	Total
Sales	$8,000,000	$5,000,000	$13,000,000
Cost of goods sold	4,800,000 (1)	4,200,000 (2)	9,000,000
Gross profit	3,200,000	800,000	4,000,000
Operating expenses			
Selling expenses	660,000	360,000	1,020,000
Administrative expenses	540,000	340,000	880,000
Total operating expenses	1,200,000	700,000	1,900,000
Income before income taxes	$2,000,000	$ 100,000	2,100,000
Income tax expense (30%)			630,000
Net income			$ 1,470,000

(1) 400,000 X $12.
(2) 200,000 X $21.

PROBLEM 23-3A

(a)

COLT INDUSTRIES
Sales Budget
For the Year Ending December 31, 2009

	Plan A	Plan B
Expected unit sales	760,000 (1)	950,000 (2)
Unit selling price	X $8.40	X $7.50
Total sales	$6,384,000	$7,125,000

(1) $6,400,000 ÷ $8 = 800,000 X 95% = 760,000.
(2) 800,000 + 150,000 = 950,000.

(b)

COLT INDUSTRIES
Production Budget
For the Year Ending December 31, 2009

	Plan A	Plan B
Expected unit sales	760,000	950,000
Add: Desired ending finished goods units	38,000 (1)	50,000
Total required units	798,000	1,000,000
Less: Beginning finished goods units	40,000	40,000
Required production units	758,000	960,000

(1) 760,000 X 5%

(c) Variable costs = $5.00 per unit ($1.80 + $2.00 + $1.20) for both plans.

	Plan A		Plan B	
Total variable costs	$3,790,000	(758,000 X $5.00)	$4,800,000	(960,000 X $5.00)
Total fixed costs	1,895,000		1,895,000	
Total costs (a)	$5,685,000		$6,695,000	
Total units (b)	758,000		960,000	
Unit cost (a) ÷ (b)	$7.50		$6.97	

The difference is due to the fact that fixed costs are spread over a larger number of units (202,000) in Plan B.

PROBLEM 23-3A (Continued)

(d) **Gross Profit**

	Plan A		Plan B	
Sales	$6,384,000		$7,125,000	
Cost of goods sold	5,700,000	(760,000 X $7.50)	6,621,500	(950,000 X $6.97)
Gross profit	$ 684,000		$ 503,500	

Plan A should be accepted because it produces a higher gross profit than Plan B.

PROBLEM 23-4A

(a) (1) Expected Collections from Customers

	January	February
November ($260,000)	$ 52,000	$ 0
December ($320,000)	96,000	64,000
January ($350,000)	175,000	105,000
February ($400,000)		200,000
Total collections	$323,000	$369,000

(2) Expected Payments for Direct Materials

	January	February
December ($100,000)	$ 40,000	$ 0
January ($110,000)	66,000	44,000
February ($130,000)		78,000
Total payments	$106,000	$122,000

PROBLEM 23-4A (Continued)

(b)

HAAS COMPANY
Cash Budget
For the Two Months Ending February 28, 2009

	January	February
Beginning cash balance	$ 60,000	$ 54,000
Add: Receipts		
Collections from customers [See Schedule (1)]	323,000	369,000
Notes receivable	15,000	
Sale of securities		6,000
Total receipts	338,000	375,000
Total available cash	398,000	429,000
Less: Disbursements		
Direct materials [See Schedule 2]	106,000	122,000
Direct labor	90,000	100,000
Manufacturing overhead	70,000	75,000
Selling and administrative expenses*	78,000	85,000
Withdrawal by owner		5,000
Total disbursements	344,000	387,000
Excess (deficiency) of available cash over cash disbursements	54,000	42,000
Financing		
Borrowings	0	8,000
Repayments	0	0
Ending cash balance	$ 54,000	$ 50,000

*Selling and administrative expenses less $1,000 depreciation.

PROBLEM 23-5A

(a)

DELEON COMPANY
San Miguel Store
Merchandise Purchases Budget
For the Months of May and June, 2009

	May	June
Budgeted cost of goods sold	$600,000	$660,000 [1]
Add: Desired ending merchandise inventory	132,000 [2]	145,200 [3]
Total	732,000	805,200
Less: Beginning merchandise inventory	120,000 [4]	132,000
Required merchandise purchases	$612,000	$673,200

[1] $800,000 X 110% = $880,000; $880,000 X 75% = $660,000.
[2] $660,000 X 20% = $132,000.
[3] $880,000 X 110% = $968,000; $968,000 X 75% = $726,000; $726,000 X 20% = $145,200.
[4] $600,000 X 20% = $120,000.

PROBLEM 23-5A (Continued)

(b)

DELEON COMPANY
San Miguel Store
Budgeted Income Statement
For the Months of May and June, 2009

	May	June
Sales	$800,000	$880,000
Cost of goods sold		
Beginning inventory	120,000	132,000
Purchases	612,000	673,200
Cost of goods available for sale	732,000	805,200
Less: Ending inventory	132,000	145,200
Cost of goods sold	600,000	660,000
Gross profit	200,000	220,000
Operating expenses		
Sales salaries	30,000	30,000
Advertising*	40,000	44,000
Delivery**	24,000	26,400
Sales commissions***	32,000	35,200
Rent	5,000	5,000
Depreciation	800	800
Utilities	600	600
Insurance	500	500
Total	132,900	142,500
Income from operations	67,100	77,500
Income tax expense (30%)	20,130	23,250
Net income	$ 46,970	$ 54,250

*5% of sales.
**3% of sales.
***4% of sales.

PROBLEM 23-6A

GLENDO INDUSTRIES
Budgeted Income Statement
For the Year Ending December 31, 2009

Sales (8,000 X $35)		$280,000
Cost of goods sold		
Finished goods inventory, January 1	$ 30,000	
Cost of goods manufactured ($69,400 + $56,600 + $54,000)	180,000	
Cost of goods available for sale	210,000	
Finished goods inventory, December 31 (3,000 X $20)	60,000	
Cost of goods sold		150,000
Gross profit		130,000
Selling and administrative expenses		76,000
Income from operations		54,000
Interest expense		3,500
Income before income taxes		50,500
Income tax expense (30%)		15,150
Net income		$ 35,350

PROBLEM 23-6A (Continued)

GLENDO INDUSTRIES
Budgeted Balance Sheet
December 31, 2009

Assets		
Current assets		
Cash	$ 7,950	
Accounts receivable ($84,000 X 40%)	33,600	
Finished goods inventory		
(3,000 units X $20)	60,000	
Total current assets		$101,550
Property, plant, and equipment		
Equipment ($40,000 + $19,000)	$59,000	
Less: Accumulated depreciation		
($10,000 + $4,000)	14,000	45,000
Total assets		$146,550
Liabilities and Stockholders' Equity		
Liabilities		
Notes payable ($25,000 – $8,000)	$17,000	
Accounts payable ($8,500* + $5,700)	14,200	
Income taxes payable	5,000	
Total liabilities		$ 36,200
Stockholders' equity		
Common stock	$50,000	
Retained earnings		
($30,000 + $35,350 – $5,000)	60,350	
Total stockholders' equity		110,350
Total liabilities and stockholders' equity		$146,550

*$17,000 X 50%

PROBLEM 23-1B

KRAUSE FARM SUPPLY COMPANY
Sales Budget
For the Six Months Ending June 30, 2008

	Quarter		Six
	1	2	Months
Expected unit sales	40,000	60,000	100,000
Unit selling price	X $60	X $60	X $60
Total sales	$2,400,000	$3,600,000	$6,000,000

KRAUSE FARM SUPPLY COMPANY
Production Budget
For the Six Months Ending June 30, 2008

	Quarter		Six
	1	2	Months
Expected unit sales	40,000	60,000	
Add: Desired ending finished goods units	15,000	20,000	
Total required units	55,000	80,000	
Less: Beginning finished goods units	10,000	15,000	
Required production units	45,000	65,000	110,000

PROBLEM 23-1B (Continued)

KRAUSE FARM SUPPLY COMPANY
Direct Materials Budget—Crup
For the Six Months Ending June 30, 2008

	Quarter		Six Months
	1	2	
Units to be produced	45,000	65,000	
Direct materials per unit	X 6	X 6	
Total pounds needed for production	270,000	390,000	
Add: Desired ending direct materials (pounds)	12,000	15,000	
Total materials required	282,000	405,000	
Less: Beginning direct materials (pounds)	9,000	12,000	
Direct materials purchases	273,000	393,000	
Cost per pound	X $4	X $4	
Total cost of direct materials purchases	$1,092,000	$1,572,000	$2,664,000

KRAUSE FARM SUPPLY COMPANY
Direct Labor Budget
For the Six Months Ending June 30, 2008

	Quarter		Six Months
	1	2	
Units to be produced	45,000	65,000	
Direct labor time (hours) per unit	X .25	X .25	
Total required direct labor hours	11,250	16,250	
Direct labor cost per hour	X $12	X $12	
Total direct labor cost	$135,000	$195,000	$330,000

PROBLEM 23-1B (Continued)

KRAUSE FARM SUPPLY COMPANY
Selling and Administrative Expense Budget
For the Six Months Ending June 30, 2008

	Quarter		Six
	1	2	Months
Budgeted sales in units	40,000	60,000	100,000
Variable (.10 X sales)	$240,000	$360,000	$600,000
Fixed	150,000	150,000	300,000
Total	$390,000	$510,000	$900,000

KRAUSE FARM SUPPLY COMPANY
Budgeted Income Statement
For the Six Months Ending June 30, 2008

Sales	$6,000,000
Cost of goods sold (100,000 X $45)	4,500,000
Gross profit	1,500,000
Selling and administrative expenses	900,000
Income from operations	600,000
Income tax expense (30%)	180,000
Net income	$ 420,000

Cost Per Bag

Cost Element	Quantity	Unit Cost	Total
Direct materials			
Crup	6 pounds	$ 4.00	$24.00
Dert	10 pounds	1.50	15.00
Direct labor	.25 hour	12.00	3.00
Manufacturing overhead (100% of direct labor cost)			3.00
Total			$45.00

PROBLEM 23-2B

(a)

MERCER INC.
Sales Budget
For the Year Ending December 31, 2008

	LN 35	LN 40	Total
Expected unit sales	300,000	180,000	
Unit selling price	X $20	X $30	
Total sales	$6,000,000	$5,400,000	$11,400,000

(b)

MERCER INC.
Production Budget
For the Year Ending December 31, 2008

	LN 35	LN 40	Total
Expected unit sales	300,000	180,000	
Add: Desired ending finished goods units	30,000	25,000	
Total required units	330,000	205,000	
Less: Beginning finished goods units	20,000	15,000	
Required production units	310,000	190,000	500,000

PROBLEM 23-2B (Continued)

(c)

MERCER INC.
Direct Materials Budget
For the Year Ending December 31, 2008

	LN 35	LN 40	Total
Units to be produced	310,000	190,000	
Direct materials per unit	X 2	X 3	
Total pounds needed for production	620,000	570,000	
Add: Desired ending direct materials (pounds)	50,000	20,000	
Total materials required	670,000	590,000	
Less: Beginning direct materials (pounds)	40,000	10,000	
Direct materials purchases	630,000	580,000	
Cost per pound	X $2	X $3	
Total cost of direct materials purchases	$1,260,000	$1,740,000	$3,000,000

(d)

MERCER INC.
Direct Labor Budget
For the Year Ending December 31, 2008

	LN 35	LN 40	Total
Units to be produced	310,000	190,000	
Direct labor time (hours) per unit	X .5	X .75	
Total required direct labor hours	155,000	142,500	
Direct labor cost per hour	X $12	X $12	
Total direct labor cost	$1,860,000	$1,710,000	$3,570,000

(e)

MERCER INC.
Budgeted Income Statement
For the Year Ending December 31, 2008

	LN 35	LN 40	Total
Sales	$6,000,000	$5,400,000	$11,400,000
Cost of goods sold	3,300,000 (1)	3,600,000 (2)	6,900,000
Gross profit	2,700,000	1,800,000	4,500,000
Operating expenses			
Selling expenses	560,000	440,000	1,000,000
Administrative expenses	420,000	380,000	800,000
Total operating expenses	980,000	820,000	1,800,000
Income before income taxes	$1,720,000	$ 980,000	2,700,000
Income tax expense (30%)			810,000
Net income			$ 1,890,000

(1) 300,000 X $11.
(2) 180,000 X $20.

PROBLEM 23-3B

(a)

LITWIN INDUSTRIES
Sales Budget
For the Year Ending December 31, 2009

	Plan A	Plan B
Expected unit sales	630,000 (1)	800,000 (2)
Unit selling price	X $7.60	X $6.65 (3)
Total sales	$4,788,000	$5,320,000

(1) 700,000 X 90% = 630,000.
(2) 700,000 + 100,000 = 800,000.
(3) $7.00 X 95% = $6.65.

(b)

LITWIN INDUSTRIES
Production Budget
For the Year Ending December 31, 2009

	Plan A	Plan B
Expected unit sales	630,000	800,000
Add: Desired ending finished goods units	90,000	100,000
Total required units	720,000	900,000
Less: Beginning finished goods units	70,000	70,000
Required production units	650,000	830,000

(c) Variable costs = $4.00 per unit ($2.00 + $1.50 + $.50) for both plans.

	Plan A	Plan B
Total variable costs	$2,600,000 (650,000 X $4.00)	$3,320,000 (830,000 X $4.00)
Total fixed costs	975,000	975,000
Total costs (a)	$3,575,000	$4,295,000
Total units (b)	650,000	830,000
Unit cost (a) ÷ (b)	$5.50	$5.17

The difference is due to the fact that fixed costs are spread over a larger number of units (180,000) in Plan B.

PROBLEM 23-3B (Continued)

(d) **Gross Profit**

	Plan A		Plan B	
Sales	$4,788,000		$5,320,000	
Cost of goods sold	3,465,000	(630,000 X $5.50)	4,136,000	(800,000 X $5.17)
Gross profit	$1,323,000		$1,184,000	

Plan A should be accepted because it produces a higher gross profit than Plan B.

PROBLEM 23-4B

(a) (1) Expected Collections from Customers

	January	February
November ($200,000)	$ 20,000	$ 0
December ($280,000)	84,000	28,000
January ($320,000)	192,000	96,000
February ($400,000)		240,000
Total collections	$296,000	$364,000

(2) Expected Payments for Direct Materials

	January	February
December ($90,000)	$63,000	$ 0
January ($80,000)	24,000	56,000
February ($110,000)		33,000
Total payments	$87,000	$89,000

PROBLEM 23-4B (Continued)

(b)

ORTON COMPANY
Cash Budget
For the Two Months Ending February 28, 2009

	January	February
Beginning cash balance	$ 60,000	$ 52,000
Add: Receipts		
Collections from customers [See Schedule (1)]	296,000	364,000
Interest receivable	3,000	
Sale of securities		5,000
Total receipts	299,000	369,000
Total available cash	359,000	421,000
Less: Disbursements		
Direct materials [See Schedule 2]	87,000	89,000
Direct labor	85,000	115,000
Manufacturing overhead	60,000	75,000
Selling and administrative expenses	75,000	80,000
Purchase of land		20,000
Total disbursements	307,000	379,000
Excess (deficiency) of available cash over cash disbursements	52,000	42,000
Financing		
Borrowings	0	8,000
Repayments	0	0
Ending cash balance	$ 52,000	$ 50,000

PROBLEM 23-5B

(a)

URBINA COMPANY
Westwood Store
Merchandise Purchases Budget
For the Months of July and August, 2008

	July	August
Budgeted cost of goods sold	$256,000	$288,000
Add: Desired ending merchandise inventory	72,000[1]	80,000[2]
Total	328,000	368,000
Less: Beginning merchandise inventory	64,000[3]	72,000
Required merchandise purchases	$264,000	$296,000

[1]$288,000 X 25% = $72,000.
[2]$500,000 X 64% = $320,000; $320,000 X 25% = $80,000.
[3]$256,000 X 25% = $64,000.

PROBLEM 23-5B (Continued)

(b)

URBINA COMPANY
Westwood Store
Budgeted Income Statement
For the Months of July and August, 2008

	July	August
Sales	$400,000	$450,000
Cost of goods sold		
Beginning inventory	64,000	72,000
Purchases	264,000	296,000
Cost of goods available for sale	328,000	368,000
Less: Ending inventory	72,000	80,000
Cost of goods sold	256,000	288,000
Gross profit	144,000	162,000
Operating expenses		
Sales salaries	40,000	40,000
Advertising*	16,000	18,000
Delivery expense**	8,000	9,000
Sales commissions***	12,000	13,500
Rent	3,000	3,000
Depreciation	700	700
Utilities	500	500
Insurance	300	300
Total	80,500	85,000
Income from operations	63,500	77,000
Income tax expense (30%)	19,050	23,100
Net income	$ 44,450	$ 53,900

*4% of sales
**2% of sales
***3% of sales

BYP 23-1 DECISION MAKING ACROSS THE ORGANIZATION

(a) The budget at Lanier Corporation is an imposed "top-down" budget which fails to consider both the need for realistic data and the human interaction essential to an effective budgeting/control process. The president has not given any basis for his goals, so one cannot know whether they are realistic for the company. True participation of company employees in preparation of the budget is minimal and limited to mechanical gathering and manipulation of data. This suggests there will be little enthusiasm for implementing the budget.

The budget process is the merging of the requirements of all facets of the company on a basis of sound judgment and equity. Specific instances of poor procedures other than the approach and goals include the following:

1. **The sales by product line should be based upon an accurate sales forecast of potential market. Therefore, the sales by product line should have been developed first to derive the sales target rather than the reverse.**

2. **Production costs probably would be the easiest and most certain costs to estimate. Given variable and fixed production costs, one could estimate the sales volume needed to cover manufacturing costs plus the costs of other aspects of the operation. This would be helpful before budgets for marketing costs and corporate office expenses are set.**

3. **The initial meeting between the vice president of finance, executive vice president, marketing manager, and production manager should be held earlier. This meeting is held too late in the budgeting process.**

(b) Lanier Corporation should consider the adoption of a "bottom to top" (participative) budget process. This means that the people responsible for performance under the budget would participate in the decisions by which the budget is established. In addition, this approach requires initial and continuing involvement of sales, financial, and production personnel to define sales and profit goals which are realistic within the constraints under which management operates. Although time-consuming, the approach should produce a more acceptable, honest, and workable goal-control mechanism. It also provides for goal congruence possibilities for both individuals and departments within the firm.

The sales forecast should be developed considering internal sales forecasts as well as external factors. Costs within departments should be divided into fixed and variable, discretionary and nondiscretionary.

(c) The functional areas should not necessarily be expected to cut costs when sales volume falls below budget. The time frame of the budget (one year) is short enough so that many costs are relatively fixed in amount. For those costs which are fixed, there is little hope for a reduction as a consequence of short-run changes in volume. However, the functional areas should be expected to cut costs should sales volume fall below target when:

1. **Control is exercised over the costs within their function.**

2. **Budgeted costs were more than adequate for the originally targeted sales; i.e., slack was present.**

3. **Budgeted costs vary to some extent with changes in sales.**

4. **There are discretionary costs which can be delayed or omitted with no serious effect on the department.**

(CMA adapted)

(a)

Direct materials	**Either lower quality materials resulting in an inferior product and possible lost sales, or fewer units produced resulting in lost sales.**
Direct labor	**Reduced production resulting in lost sales, or reduction in quality of product resulting in lost sales.**
Insurance	**Less coverage; may increase risk beyond acceptable levels.**
Depreciation	**To reduce depreciation, fixed assets would have to be disposed of. Could result in less production and lost sales.**
Machine repairs	**Less efficient operations, or lost production and sales.**
Sales salaries	**Lost sales.**
Office salaries	**Less effective administrative functions.**
Factory salaries	**Lost production due to inefficiency, and therefore lost sales.**

(b) Given the nature of their product, a decline in quality should be avoided, since this could result in lower future sales. Direct materials represent the largest single cost, and thus perhaps the greatest potential savings. Perhaps substitute materials of similar quality can be found, or less expensive materials can be used for aspects of the product where quality is not as critical. Additionally, it may be possible to renegotiate prices with the supplier. Bedner & Flott should be very reluctant to reduce repair costs, since in the long run this can be very expensive. Perhaps salaried and hourly employees can be encouraged to take pay cuts if a profit-sharing mechanism is introduced.

(a) The factors that affect the budgeting process at Network Computing Devices, Inc. are general economic conditions affecting industry demand for computer products, the timing and market acceptance of new products of the Company and its competitors, the timing of significant orders from large customers, periodic changes in product pricing and discounting due to competitive factors, and the availability of key product components (raw materials).

In addition, the budgeting process will be affected by the Company's success with its products, its product and customer mix, and the level of competition it experiences.

(b) Internationally, third quarter sales are adversely affected because European customers reduce their business activity in August. In addition, international sales are denominated in U.S. dollars and any change in the value of the dollar relative to foreign currencies could make the Company's products more or less competitive in foreign markets.

BYP 23-4 COMMUNICATION ACTIVITY

Date 2009

Mrs. Julie Fleming, CEO
Life Protection Products

Dear Mrs. Fleming:

Allow me to congratulate you on the success of your new venture! The growth in sales you have experienced is phenomenal. You have managed the business side of the venture very well also. At the same time, I understand your concern about cash flow. You are selling these kits as fast as you can make them, and yet you are running out of cash.

There is a solution to your problem. Before describing that, it may be helpful for you to understand why this situation occurred. The primary reason is that you are purchasing kit supplies at least two months in advance of sales. As your business expands, these materials costs continue to increase. Sales do not "catch up" until the Drs. Fleming have a seminar. You did not describe in detail how often these seminars are, but I would guess that they tend to run in cycles rather than being regularly spaced.

Eventually, as sales stabilize, you will find that cash inflows exceed cash outflows, and your need for additional cash will subside. Presently, I think it would be a good idea to try to borrow additional funds. I have not seen all your financial data, but judging only from the cash budget you showed me, it appears that you have the basis of a very successful company. If so, your banker will be able to see the potential in your business and should be happy to provide the cash you need. You will need to prepare a full set of financial statements. I will be happy to assist you, if you desire.

There is also a possibility that you have underpriced your product. You are providing a valuable service in assembling this information and these materials. The fact that every seminar results in a sellout of the materials may mean that you have priced your product too low. I know that your husband wishes to have these materials available to every family, but increasing the price a little may not make the price too high, and would better compensate you for your efforts.

However, even if you raised prices, you will find that you need additional cash as long as the business continues to expand. It certainly does not mean that you and Amy are doing anything wrong. It just means that you will be investing additional funds as long as you continue to grow.

In my opinion, the best way to make sure these kits are available to as many families as possible is for you and Amy to have a consultant evaluate and determine the size of the market for you. Then you can decide whether to expand to meet the need, or whether to keep your own business small and allow competitors to imitate your product.

Congratulations again on a very successful product. Call or email this office if we may be of further assistance preparing financial statements or providing additional advice.

Sincerely,

Ima Student
Best and Superior, Certified Public Accountants

(a) At best, if you disclose the errors in your calculations, you will be embarrassed. At worst, you will be dismissed without a recommendation for another job.

(b) The president will continue making presentations using data that are grossly overstated. In time, your error may be detected when the events you projected do not materialize.

(c) The most ethical scenario would be to admit your error, let the president know about the error, provide the president with corrected projections, and allow the president to decide how to alter his presentations during the second week of his speech-making.

Personal Budget
Typical Month

Income:		
Wages and bonuses	$2,000	
Interest income	50	
Income subtotal	2,050	
Income taxes withheld	300	
Spendable income		$1,750
Expenses:		
Mortgage or rent	400	
Utilities		
Electricity	22	
Telephones	90	
Food:		
Groceries	80	
Eating out	150	
Insurance	100	
Transportation	150	
Student loans	275	
Entertainment/recreation	250	
Savings	50	
Miscellaneous	110	
Total investments and expenses		1,677
Surplus/Shortage		$ 73