Profit Planning (Chapter 9)

Types of budget:

1. Functional Budget
    a. Sales Forecasting
    b. Sales Budget
    c. Production Budget
    d. Direct Materials Budget
    e. Direct Labor Budget
    f. Manufacturing Overhead Budget
    g. Administrative Overhead Budget
    h. Selling and distribution Overhead budget
2. Financial Budget
    a. Cash Budget
    b. Budgeted income statement
    c. Budgeted balance Sheet

Functional + Financial Budget = **Master Budget**

Zero Based Budgeting = First Budget jeta kono data charai estimate kora hoy

Budget:

A budget is a quantitative plan for acquiring and using resources over a specified time period.

Budget Committee:

A group of key managers who are responsible for overall budgeting policy and for coordinating the preparation of budget.

Cash Budget:

A detailed plan showing how cash resources will be acquired and used over a specific time period.

Direct labor budget A detailed plan that shows the direct labor-hours required to fulfill the production budget. (p. 382)

Direct materials budget A detailed plan showing the amount of raw materials that must be purchased to fulfill the production budget and to provide for adequate inventories. (p. 380)

Ending finished goods inventory budget A budget showing the dollar amount of unsold finished goods inventory that will appear on the ending balance sheet. (p. 384)

Manufacturing overhead budget A detailed plan showing the production costs, other than direct materials and direct labor, that will be incurred over a specified time period. (p. 383)

Master budget A number of separate but interdependent budgets that formally lay out the company's sales, production, and financial goals and that culminates in a cash budget, budgeted income statement, and budgeted balance sheet. (p. 374)

Merchandise purchases budget A detailed plan used by a merchandising company that shows the amount of goods that must be purchased from suppliers during the period. (p. 380)

Participative budget See *Self-imposed budget.* (p. 371)

Perpetual budget See *Continuous budget.* (p. 370)

Planning Developing goals and preparing budgets to achieve those goals. (p. 369)

Production budget A detailed plan showing the number of units that must be produced during a period in order to satisfy both sales and inventory needs. (p. 378)

Responsibility accounting A system of accountability in which managers are held responsible for those items of revenue and cost—and only those items—over which they can exert significant control. The managers are held responsible for differences between budgeted and actual results. (p. 369)

Sales budget A detailed schedule showing expected sales expressed in both dollars and units. (p. 374)

Advantages of Budgeting

Organizations realize many benefits from budgeting including:

1. Budgets *communicate* management's plans throughout the organization.
2. Budgets force managers to *think about* and *plan* for the future. In the absence of the necessity to prepare a budget, many managers would spend all of their time dealing with day-to-day emergencies.
3. The budgeting process provides a means of *allocating resources* to those parts of the organization where they can be used most effectively.
4. The budgeting process can uncover potential *bottlenecks* before they occur.
5. Budgets *coordinate* the activities of the entire organization by *integrating* the plans of its various parts. Budgeting helps to ensure that everyone in the organization is pulling in the same direction.
6. Budgets define goals and objectives that can serve as *benchmarks* for evaluating subsequent performance.

Responsibility Accounting:

A person is responsible for only those items and only those items that he/she can control to a significant extend. Someone should be held responsible for each cost or else no one will be responsible and the cost will inevitably grow out of control.

The Self-Imposed Budget or Participative Budget

A budget that is prepared with the full cooperation and participation of managers at all levels. This is a method of preparing budgets in which managers prepare their own budget. These budgets are reviewed by the higher level managers, and any issues are resolved by mutual agreement.

ADVANTAGES

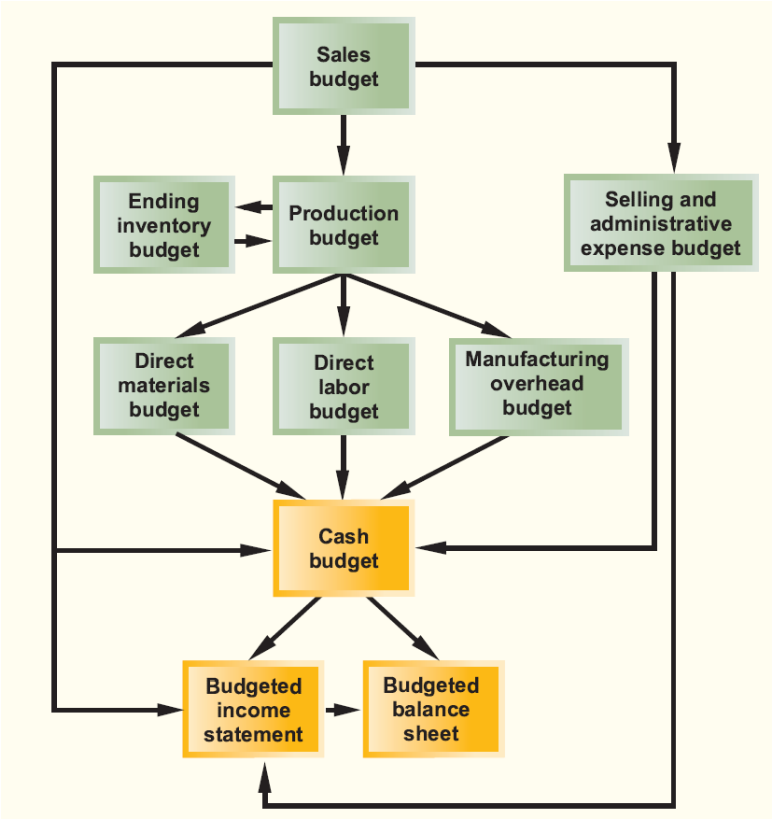
1. Individuals at all levels of the organization are recognized as members of the team whose views and judgments are valued by top management.
2. Budget estimates prepared by front-line managers are often more accurate and reliable than estimates prepared by top managers who have less intimate knowledge of markets and day-to-day operations.
3. Motivation is generally higher when individuals participate in setting their own goals than when the goals are imposed from above. Self-imposed budgets create commitment.
4. A manager who is not able to meet a budget that has been imposed from above can always say that the budget was unrealistic and impossible to meet. With a self-imposed budget, this excuse is not available.

Budgetary Slack

Budgetary slack is the deliberate under-estimation of budgeted revenue or over-estimation of budgeted expenses.

Master Budget

The master budget consists of a number of separate but interdependent budgets that formally layout the company's sales, production, and financial goals.



Review Problem: Budget Schedules

Mynor Corporation manufactures and sells a seasonal product that has peak sales in the third quarter. The following information concerns operations for Year 2—the coming year—and for the first two quarters of Year 3:

a. The company's single product sells for $8 per unit. Budgeted sales in units for the next six quarters are as follows (all sales are on credit):

	Year 2 Quarter				Year 3 Quarter	
	1	2	3	4	1	2
Budgeted unit sales	40,000	60,000	100,000	50,000	70,000	80,000

b. Sales are collected in the following pattern: 75% in the quarter the sales are made, and the remaining 25% in the following quarter. On January 1, Year 2, the company's balance sheet showed $65,000 in accounts receivable, all of which will be collected in the first quarter of the year. Bad debts are negligible and can be ignored.

c. The company desires an ending finished goods inventory at the end of each quarter equal to 30% of the budgeted unit sales for the next quarter. On December 31, Year 1, the company had 12,000 units on hand.

d. Five pounds of raw materials are required to complete one unit of product. The company requires ending raw materials inventory at the end of each quarter equal to 10% of the following quarter's production needs. On December 31, Year 1, the company had 23,000 pounds of raw materials on hand.

e. The raw material costs $0.80 per pound. Raw material purchases are paid for in the following pattern: 60% paid in the quarter the purchases are made, and the remaining 40% paid in the following quarter. On January 1, Year 2, the company's balance sheet showed $81,500 in accounts payable for raw material purchases, all of which will be paid for in the first quarter of the year.

Required:

Prepare the following budgets and schedules for the year, showing both quarterly and total figures:

1. A sales budget and a schedule of expected cash collections.
2. A production budget.
3. A direct materials budget and a schedule of expected cash payments for purchases of materials.

Solution to Review Problem

1. The sales budget is prepared as follows:

	Year 2 Quarter				
	1	2	3	4	Year
Budgeted unit sales	40,000	60,000	100,000	50,000	250,000
Selling price per unit	×$8	×$8	×$8	×$8	×$8
Total sales	$320,000	$480,000	$800,000	$400,000	$2,000,000

Based on the budgeted sales above, the schedule of expected cash collections is prepared as follows:

	Year 2 Quarter				
	1	2	3	4	Year
Accounts receivable, beginning balance	$ 65,000				$ 65,000
First-quarter sales ($320,000 × 75%, 25%)	240,000	$ 80,000			320,000
Second-quarter sales ($480,000 × 75%, 25%)		360,000	$120,000		480,000
Third-quarter sales ($800,000 × 75%, 25%)			600,000	$200,000	800,000
Fourth-quarter sales ($400,000 × 75%)				300,000	300,000
Total cash collections	$305,000	$440,000	$720,000	$500,000	$1,965,000

2. Based on the sales budget in units, the production budget is prepared as follows:

	Year 2 Quarter					Year 3 Quarter	
	1	2	3	4	Year	1	2
Budgeted unit sales	40,000	60,000	100,000	50,000	250,000	70,000	80,000
Add desired ending finished goods inventory*	18,000	30,000	15,000	21,000†	21,000	24,000	
Total needs	58,000	90,000	115,000	71,000	271,000	94,000	
Less beginning finished goods inventory	12,000	18,000	30,000	15,000	12,000	21,000	
Required production	46,000	72,000	85,000	56,000	259,000	73,000	

*30% of the following quarter's budgeted sales in units.
†30% of the budgeted Year 3 first-quarter sales.

3. Based on the production budget, raw materials will need to be purchased during the year as follows:

	Year 2 Quarter					Year 3 Quarter
	1	2	3	4	Year 2	1
Required production (units)	46,000	72,000	85,000	56,000	259,000	73,000
Raw materials needed per unit (pounds)	×5	×5	×5	×5	×5	×5
Production needs (pounds)	230,000	360,000	425,000	280,000	1,295,000	365,000
Add desired ending inventory of raw materials (pounds)*	36,000	42,500	28,000	36,500†	36,500	
Total needs (pounds)	266,000	402,500	453,000	316,500	1,331,500	
Less beginning inventory of raw materials (pounds)	23,000	36,000	42,500	28,000	23,000	
Raw materials to be purchased (pounds)	243,000	366,500	410,500	288,500	1,308,500	

*10% of the following quarter's production needs in pounds.
†10% of the Year 3 first-quarter production needs in pounds.

Based on the raw material purchases above, expected cash payments are computed as follows:

	Year 2 Quarter				
	1	2	3	4	Year 2
Cost of raw materials to be purchased at $0.80 per pound	$194,400	$293,200	$328,400	$230,800	$1,046,800
Accounts payable, beginning balance	$ 81,500				$ 81,500
First-quarter purchases ($194,400 × 60%, 40%)	116,640	$ 77,760			194,400
Second-quarter purchases ($293,200 × 60%, 40%)		175,920	$117,280		293,200
Third-quarter purchases ($328,400 × 60%, 40%)			197,040	$131,360	328,400
Fourth-quarter purchases ($230,800 × 60%)				138,480	138,480
Total cash disbursements	$198,140	$253,680	$314,320	$269,840	$1,035,980

9–1 What is a budget? What is budgetary control?
9–2 Discuss some of the major benefits to be gained from budgeting.
9–3 What is meant by the term *responsibility accounting?*
9–4 What is a master budget? Briefly describe its contents.
9–5 Why is the sales forecast the starting point in budgeting?
9–6 "As a practical matter, planning and control mean exactly the same thing." Do you agree? Explain.
9–7 Describe the flow of budget data in an organization. Who are the participants in the budgeting process, and how do they participate?
9–8 What is a self-imposed budget? What are the major advantages of self-imposed budgets? What caution must be exercised in their use?
9–9 How can budgeting assist a company in planning its workforce staffing levels?
9–10 "The principal purpose of the cash budget is to see how much cash the company will have in the bank at the end of the year." Do you agree? Explain.

9-1

A budget is a detailed quantitative plan for the acquisition and use of financial and other resources over a given time period. Budgetary control involves using budgets to increase the likelihood that all parts of an organization are working together to achieve the goals set down in the planning stage.

9-2

1. Budgets communicate management's plans throughout the organization.

2. Budgets force managers to think about and plan for the future. In the absence of the necessity to prepare a budget, many managers would spend all of their time dealing with day-today emergencies.
3. The budgeting process provides a means of allocating resources to those parts of the organization where they can be used most effectively.
4. The budgeting process can uncover potential bottlenecks before they occur.
5. Budgets coordinate the activities of the entire organization by integrating the plans of its various parts. Budgeting helps to ensure that everyone in the organization is pulling in the same direction.
6. Budgets define goals and objectives that can serve as benchmarks for evaluating subsequent performance.

9-3

Responsibility accounting is a system in which a manager is held responsible for those items of revenues and costs—and only those items—that the manager can control to a significant extent. Each line item in the budget is made the responsibility of a manager who is then held responsible for differences between budgeted and actual results.

9-4

A master budget represents a summary of all of management's plans and goals for the future, and outlines the way in which these plans are to be accomplished. The master budget is composed of a number of smaller, specific budgets encompassing sales, production, raw materials, direct labor, manufacturing overhead, selling and administrative expenses, and inventories. The master budget usually also contains a budgeted income statement, budgeted balance sheet, and cash budget.

9-5

The level of sales impacts virtually every other aspect of the firm's activities. It determines the production budget, cash collections, cash disbursements, and selling and administrative budget that in turn determine the cash budget and budgeted income statement and balance sheet.

9-6

No. Planning and control are different, although related, concepts. Planning involves developing goals and developing budgets to achieve those goals. Control, by contrast, involves the means by which management attempts to ensure that the goals set down at the planning stage are attained.

9-7

The flow of budgeting information moves in two directions—upward and downward. The initial flow should be from the bottom of the organization upward. Each person having responsibility over revenues or costs should prepare the budget data against which his or her subsequent performance will be measured. As the budget data are communicated upward, higher-level managers should review the budgets for consistency with the overall goals of the organization and the plans of other units in the organization. Any issues should be resolved in discussions between the individuals who prepared the budgets and their managers. All levels of an organization should participate in the budgeting process—not just top management or the accounting department. Generally, the lower levels will be more familiar with detailed, day-to-day operating data, and for this reason will have primary responsibility for developing the specifics in the budget. Top levels of management should have a better perspective concerning the company's strategy.

9-8

A self-imposed budget is one in which persons with responsibility over cost control prepare their own budgets. This is in contrast to a budget that is imposed from above. The major advantages of a self-imposed budget are: (1) Individuals at all levels of the organization are recognized as members of the team whose views and judgments are valued. (2) Budget estimates prepared by front-line managers are often more accurate and reliable than estimates prepared by top managers who have less intimate

knowledge of markets and day-to-day operations. (3) Motivation is generally higher when individuals participate in setting their own goals than when the goals are imposed from above. Self-imposed budgets create commitment. (4) A manager who is not able to meet a budget that has been imposed from above can always say that the budget was unrealistic and impossible to meet. With a self-imposed budget, this excuse is not available. Self-imposed budgets do carry with them the risk of budgetary slack. The budgets prepared by lower-level managers should be carefully reviewed to prevent too much slack.

9-9
The direct labor budget and other budgets can be used to forecast workforce staffing needs. Careful planning can help a company avoid erratic hiring and laying off of employees.

9-10
The principal purpose of the cash budget is NOT to see how much cash the company will have in the bank at the end of the year. Although this is one of the purposes of the cash budget, the principal purpose is to provide information on probable cash needs *during* the budget period, so that bank loans and other sources of financing can be anticipated and arranged well in advance.

EXERCISE 9–1 Schedule of Expected Cash Collections [LO2]

Silver Company makes a product that is very popular as a Mother's Day gift. Thus, peak sales occur in May of each year, as shown in the company's sales budget for the second quarter given below:

	April	May	June	Total
Budgeted sales (all on account)	$300,000	$500,000	$200,000	$1,000,000

From past experience, the company has learned that 20% of a month's sales are collected in the month of sale, another 70% are collected in the month following sale, and the remaining 10% are collected in the second month following sale. Bad debts are negligible and can be ignored. February sales totaled $230,000, and March sales totaled $260,000.

Required:

1. Prepare a schedule of expected cash collections from sales, by month and in total, for the second quarter.
2. Assume that the company will prepare a budgeted balance sheet as of June 30. Compute the accounts receivable as of that date.

Exercise 9-1 (20 minutes)

1.

	April	*May*	*June*	*Total*
February sales: $230,000 × 10%.....	$ 23,000			$ 23,000
March sales: $260,000 × 70%, 10%.....	182,000	$ 26,000		208,000
April sales: $300,000 × 20%, 70%, 10%.....	60,000	210,000	$ 30,000	300,000
May sales: $500,000 × 20%, 70%.....		100,000	350,000	450,000
June sales: $200,000 × 20%.....			40,000	40,000
Total cash collections.....	$265,000	$336,000	$420,000	$1,021,000

Observe that even though sales peak in May, cash collections peak in June. This occurs because the bulk of the company's customers pay in the month following sale. The lag in collections that this creates is even more pronounced in some companies. Indeed, it is not unusual for a company to have the least cash available in the months when sales are greatest.

2. Accounts receivable at June 30:

From May sales: $500,000 × 10%.....	$ 50,000
From June sales: $200,000 × (70% + 10%).....	160,000
Total accounts receivable at June 30.....	$210,000

EXERCISE 9–2 Production Budget [LO3]

Down Under Products, Ltd., of Australia has budgeted sales of its popular boomerang for the next four months as follows:

	Sales in Units
April	50,000
May	75,000
June	90,000
July.	80,000

The company is now in the process of preparing a production budget for the second quarter. Past experience has shown that end-of-month inventory levels must equal 10% of the following month's sales. The inventory at the end of March was 5,000 units.

Required:

Prepare a production budget for the second quarter; in your budget, show the number of units to be produced each month and for the quarter in total.

Exercise 9-2 (10 minutes)

	April	May	June	Quarter
Budgeted sales in units	50,000	75,000	90,000	215,000
Add desired ending inventory*	7,500	9,000	8,000	8,000
Total needs	57,500	84,000	98,000	223,000
Less beginning inventory	5,000	7,500	9,000	5,000
Required production	52,500	76,500	89,000	218,000

*10% of the following month's sales in units.

EXERCISE 9–3 Direct Materials Budget [LO4]

Three grams of musk oil are required for each bottle of Mink Caress, a very popular perfume made by a small company in western Siberia. The cost of the musk oil is 150 roubles per kilogram. (Siberia is located in Russia, whose currency is the rouble.) Budgeted production of Mink Caress is given below by quarters for Year 2 and for the first quarter of Year 3:

	Year 2				Year 3
	First	Second	Third	Fourth	First
Budgeted production, in bottles	60,000	90,000	150,000	100,000	70,000

Musk oil has become so popular as a perfume ingredient that it has become necessary to carry large inventories as a precaution against stock-outs. For this reason, the inventory of musk oil at the end of a quarter must be equal to 20% of the following quarter's production needs. Some 36,000 grams of musk oil will be on hand to start the first quarter of Year 2.

Required:

Prepare a direct materials budget for musk oil, by quarter and in total, for Year 2. At the bottom of your budget, show the amount of purchases in roubles for each quarter and for the year in total.

Exercise 9-3 (15 minutes)

	Year 2				Year 3
	First	Second	Third	Fourth	First
Required production in bottles	60,000	90,000	150,000	100,000	70,000
Number of grams per bottle	× 3	× 3	× 3	× 3	× 3
Total production needs—grams	180,000	270,000	450,000	300,000	210,000

	Year 2				
	First	Second	Third	Fourth	Year
Production needs—grams (above)	180,000	270,000	450,000	300,000	1,200,000
Add desired ending inventory—grams	54,000	90,000	60,000	42,000	42,000
Total needs—grams	234,000	360,000	510,000	342,000	1,242,000
Less beginning inventory—grams	36,000	54,000	90,000	60,000	36,000
Raw materials to be purchased—grams	198,000	306,000	420,000	282,000	1,206,000
Cost of raw materials to be purchased at 150 roubles per kilogram	29,700	45,900	63,000	42,300	180,900

EXERCISE 9–4 Direct Labor Budget [LO5]

The production manager of Rordan Corporation has submitted the following forecast of units to be produced by quarter for the upcoming fiscal year:

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Units to be produced	8,000	6,500	7,000	7,500

Each unit requires 0.35 direct labor-hours, and direct laborers are paid $12.00 per hour.

Required:

1. Construct the company's direct labor budget for the upcoming fiscal year, assuming that the direct labor workforce is adjusted each quarter to match the number of hours required to produce the forecasted number of units produced.
2. Construct the company's direct labor budget for the upcoming fiscal year, assuming that the direct labor workforce is not adjusted each quarter. Instead, assume that the company's direct labor workforce consists of permanent employees who are guaranteed to be paid for at least 2,600 hours of work each quarter. If the number of required direct labor-hours is less than this number, the workers are paid for 2,600 hours anyway. Any hours worked in excess of 2,600 hours in a quarter are paid at the rate of 1.5 times the normal hourly rate for direct labor.

Exercise 9-4 (20 minutes)

1. Assuming that the direct labor workforce is adjusted each quarter, the direct labor budget is:

	1st Quarter	*2nd Quarter*	*3rd Quarter*	*4th Quarter*	*Year*
Units to be produced	8,000	6,500	7,000	7,500	29,000
Direct labor time per unit (hours)	× 0.35	× 0.35	× 0.35	× 0.35	× 0.35
Total direct labor-hours needed	2,800	2,275	2,450	2,625	10,150
Direct labor cost per hour	× $12.00	× $12.00	× $12.00	× $12.00	× $12.00
Total direct labor cost	$ 33,600	$ 27,300	$ 29,400	$ 31,500	$121,800

2. Assuming that the direct labor workforce is not adjusted each quarter and that overtime wages are paid, the direct labor budget is:

	1st Quarter	*2nd Quarter*	*3rd Quarter*	*4th Quarter*	*Year*
Units to be produced	8,000	6,500	7,000	7,500	
Direct labor time per unit (hours)	× 0.35	× 0.35	× 0.35	× 0.35	
Total direct labor-hours needed	2,800	2,275	2,450	2,625	
Regular hours paid	2,600	2,600	2,600	2,600	
Overtime hours paid	200	0	0	25	
Wages for regular hours (@ $12.00 per hour)	$31,200	$31,200	$31,200	$31,200	$124,800
Overtime wages (@ 1.5 × $12.00 per hour)	3,600	0	0	450	4,050
Total direct labor cost	$34,800	$31,200	$31,200	$31,650	$128,850

EXERCISE 9–5 Manufacturing Overhead Budget [LO6]

The direct labor budget of Yuvwell Corporation for the upcoming fiscal year contains the following details concerning budgeted direct labor-hours:

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Budgeted direct labor-hours	8,000	8,200	8,500	7,800

The company's variable manufacturing overhead rate is $3.25 per direct labor-hour and the company's fixed manufacturing overhead is $48,000 per quarter. The only noncash item included in fixed manufacturing overhead is depreciation, which is $16,000 per quarter.

Required:

1. Construct the company's manufacturing overhead budget for the upcoming fiscal year.
2. Compute the company's manufacturing overhead rate (including both variable and fixed manufacturing overhead) for the upcoming fiscal year. Round off to the nearest whole cent.

Exercise 9-5 (15 minutes)

1.

Yuvwell Corporation
Manufacturing Overhead Budget

	1st Quarter	*2nd Quarter*	*3rd Quarter*	*4th Quarter*	*Year*
Budgeted direct labor-hours	8,000	8,200	8,500	7,800	32,500
Variable overhead rate	× $3.25	× $3.25	× $3.25	× $3.25	× $3.25
Variable manufacturing overhead	$26,000	$26,650	$27,625	$25,350	$105,625
Fixed manufacturing overhead	48,000	48,000	48,000	48,000	192,000
Total manufacturing overhead	74,000	74,650	75,625	73,350	297,625
Less depreciation	16,000	16,000	16,000	16,000	64,000
Cash disbursements for manufacturing overhead	$58,000	$58,650	$59,625	$57,350	$233,625

2.

Total budgeted manufacturing overhead for the year (a)	$297,625
Total budgeted direct labor-hours for the year (b)	32,500
Manufacturing overhead rate for the year (a) ÷ (b)	$ 9.16

EXERCISE 9–6 Selling and Administrative Expense Budget [LO7]

The budgeted unit sales of Weller Company for the upcoming fiscal year are provided below:

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Budgeted unit sales	15,000	16,000	14,000	13,000

The company's variable selling and administrative expense per unit is $2.50. Fixed selling and administrative expenses include advertising expenses of $8,000 per quarter, executive salaries of $35,000 per quarter, and depreciation of $20,000 per quarter. In addition, the company will make insurance payments of $5,000 in the first quarter and $5,000 in the third quarter. Finally, property taxes of $8,000 will be paid in the second quarter.

Required:

Prepare the company's selling and administrative expense budget for the upcoming fiscal year.

Exercise 9-6 (15 minutes)

Weller Company
Selling and Administrative Expense Budget

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year
Budgeted unit sales	15,000	16,000	14,000	13,000	58,000
Variable selling and administrative expense per unit	× $2.50	× $2.50	× $2.50	× $2.50	× $2.50
Variable expense	$ 37,500	$ 40,000	$ 35,000	$ 32,500	$145,000
Fixed selling and administrative expenses:					
Advertising	8,000	8,000	8,000	8,000	32,000
Executive salaries	35,000	35,000	35,000	35,000	140,000
Insurance	5,000		5,000		10,000
Property taxes		8,000			8,000
Depreciation	20,000	20,000	20,000	20,000	80,000
Total fixed expense	68,000	71,000	68,000	63,000	270,000
Total selling and administrative expenses	105,500	111,000	103,000	95,500	415,000
Less depreciation	20,000	20,000	20,000	20,000	80,000
Cash disbursements for selling and administrative expenses	$ 85,500	$ 91,000	$ 83,000	$ 75,500	$335,000

EXERCISE 9–7 Cash Budget [LO8]

Garden Depot is a retailer that is preparing its budget for the upcoming fiscal year. Management has prepared the following summary of its budgeted cash flows:

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Total cash receipts	$180,000	$330,000	$210,000	$230,000
Total cash disbursements	$260,000	$230,000	$220,000	$240,000

The company's beginning cash balance for the upcoming fiscal year will be $20,000. The company requires a minimum cash balance of $10,000 and may borrow any amount needed from a local bank at a quarterly interest rate of 3%. The company may borrow any amount at the beginning of any quarter and may repay its loans, or any part of its loans, at the end of any quarter. Interest payments are due on any principal at the time it is repaid. For simplicity, assume that interest is not compounded.

Required:

Prepare the company's cash budget for the upcoming fiscal year.

Exercise 9-7 (15 minutes)

Garden Depot
Cash Budget

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year
Cash balance, beginning	$ 20,000	$ 10,000	$ 35,800	$ 25,800	$ 20,000
Total cash receipts	180,000	330,000	210,000	230,000	950,000
Total cash available	200,000	340,000	245,800	255,800	970,000
Less total cash disbursements	260,000	230,000	220,000	240,000	950,000
Excess (deficiency) of cash available over disbursements	(60,000)	110,000	25,800	15,800	20,000
Financing:					
Borrowings (at beginnings of quarters)*	70,000				70,000
Repayments (at ends of quarters)		(70,000)			(70,000)
Interest§		(4,200)			(4,200)
Total financing	70,000	(74,200)			(4,200)
Cash balance, ending	$ 10,000	$ 35,800	$ 25,800	$ 15,800	$ 15,800

* Since the deficiency of cash available over disbursements is $60,000, the company must borrow $70,000 to maintain the desired ending cash balance of $10,000.

§ $70,000 × 3% × 2 = $4,200.