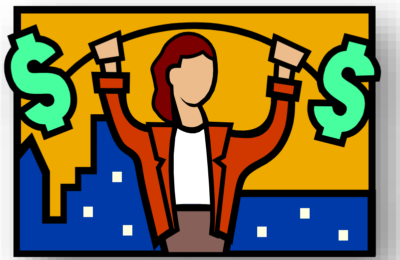
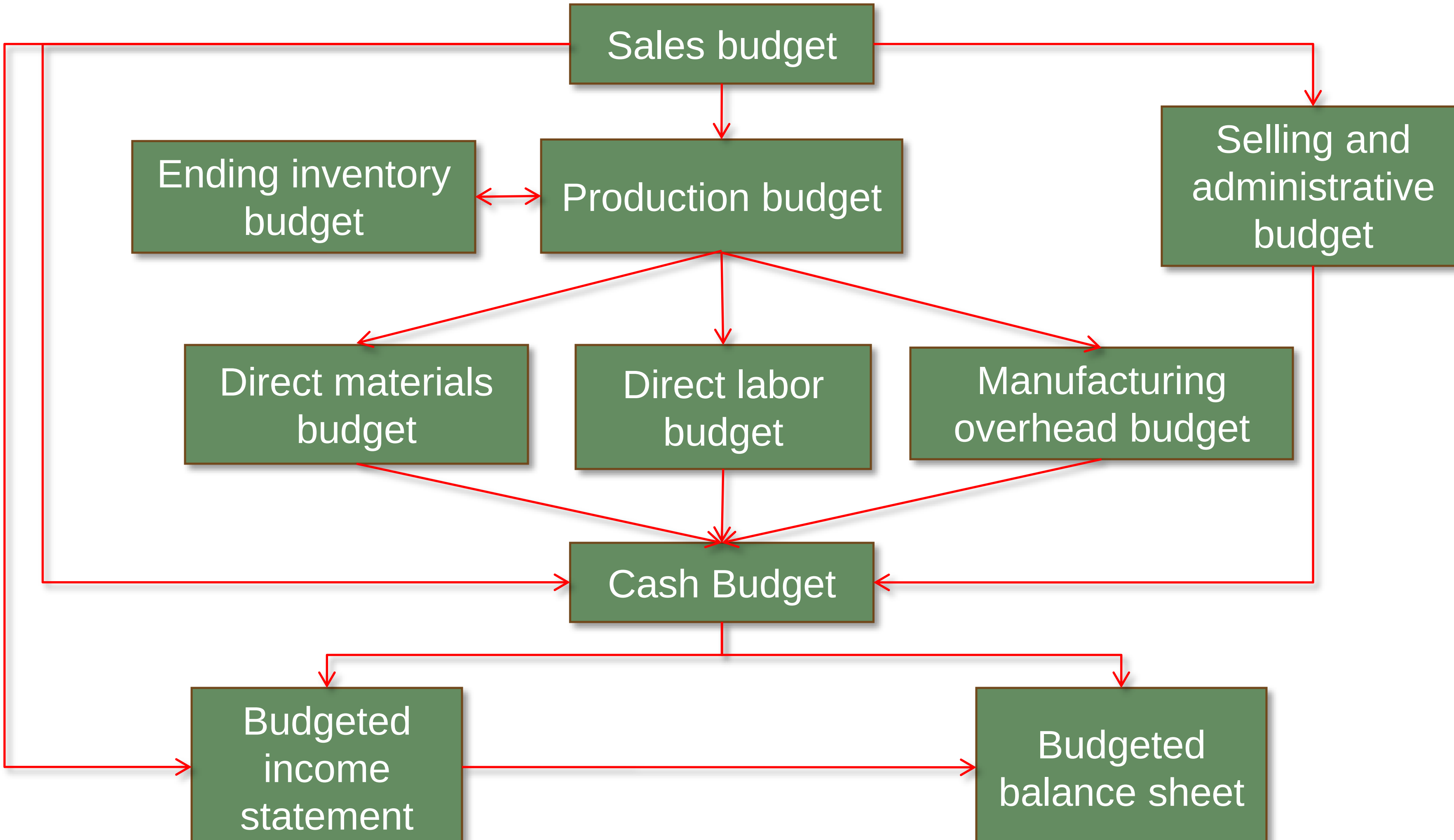
The Basic Framework of Budgeting

A **budget** is a detailed quantitative plan for acquiring and using financial and other resources over a specified forthcoming time period.

1. The act of preparing a budget is called **budgeting**.
2. The use of budgets to control an organization's activities is known as **budgetary control**.



The Master Budget: An Overview



Seeing the Big Picture

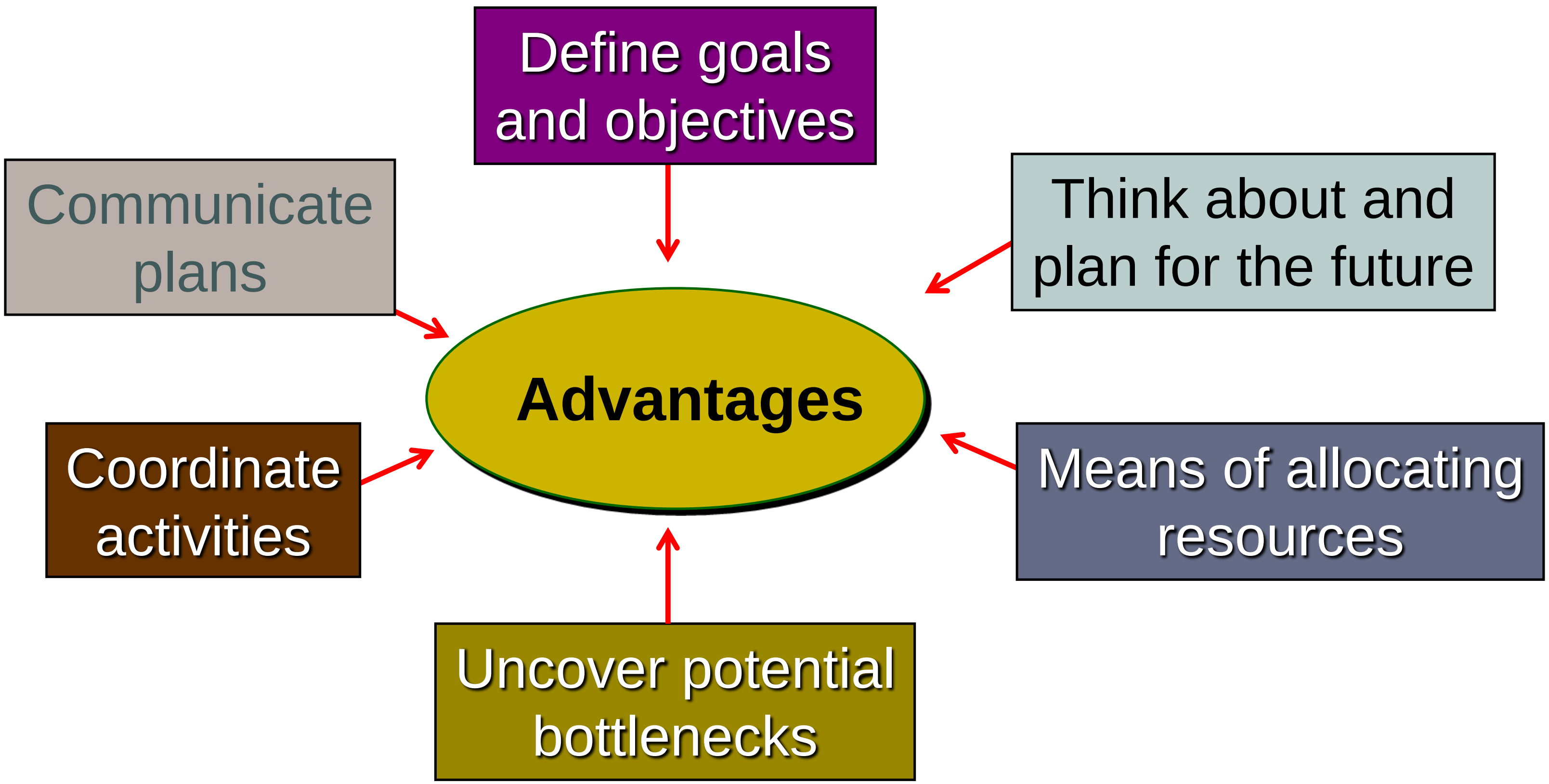
1. How much sales revenue will we earn?
2. How much cash will we collect from customers?
3. How much raw material will we need to purchase?
4. How much manufacturing costs will we incur?
5. How much cash will we pay to our suppliers and our direct laborers, and how much cash will we pay for manufacturing overhead resources?
6. What is the total cost that will be transferred from finished goods inventory to cost of good sold?
7. How much selling and administrative expense will we incur and how much cash will be pay related to those expenses?
8. How much money will we borrow from or repay to lenders – including interest?
9. How much operating income will we earn?
10. What will our balance sheet look like at the end of the budget period?

Difference Between Planning and Control

Planning –
involves developing objectives and preparing various budgets to achieve those objectives.

Control –
involves the steps taken by management to increase the likelihood that the objectives set down while planning are attained and that all parts of the organization are working together toward that goal.

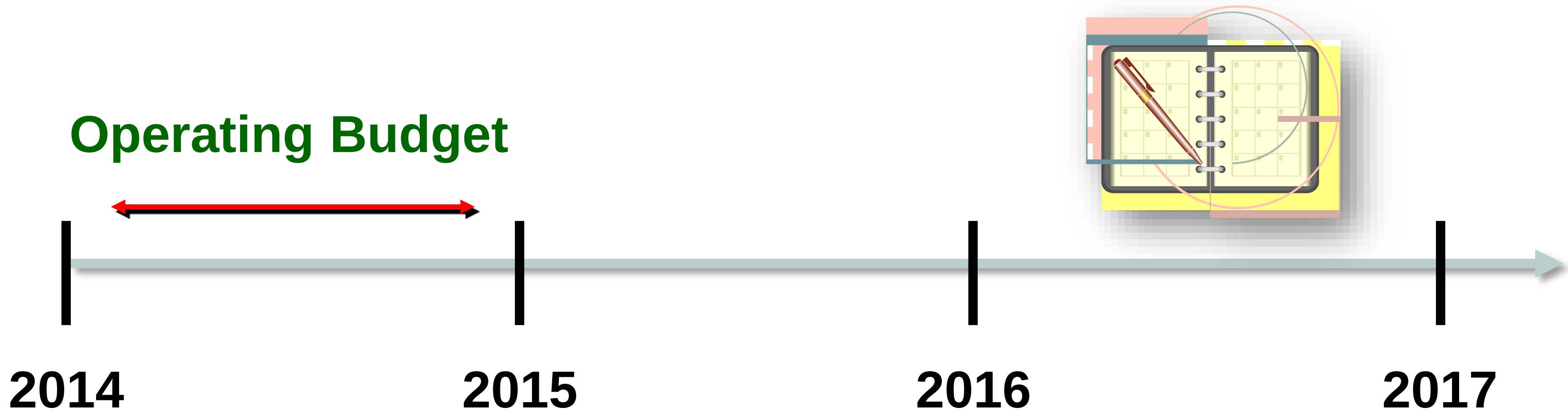
Advantages of Budgeting



Responsibility Accounting

Managers should be held responsible for those items - and *only* those items - that they can actually control to a significant extent. Responsibility accounting enables organizations to *react quickly* to deviations from their plans and to *learn* from feedback.

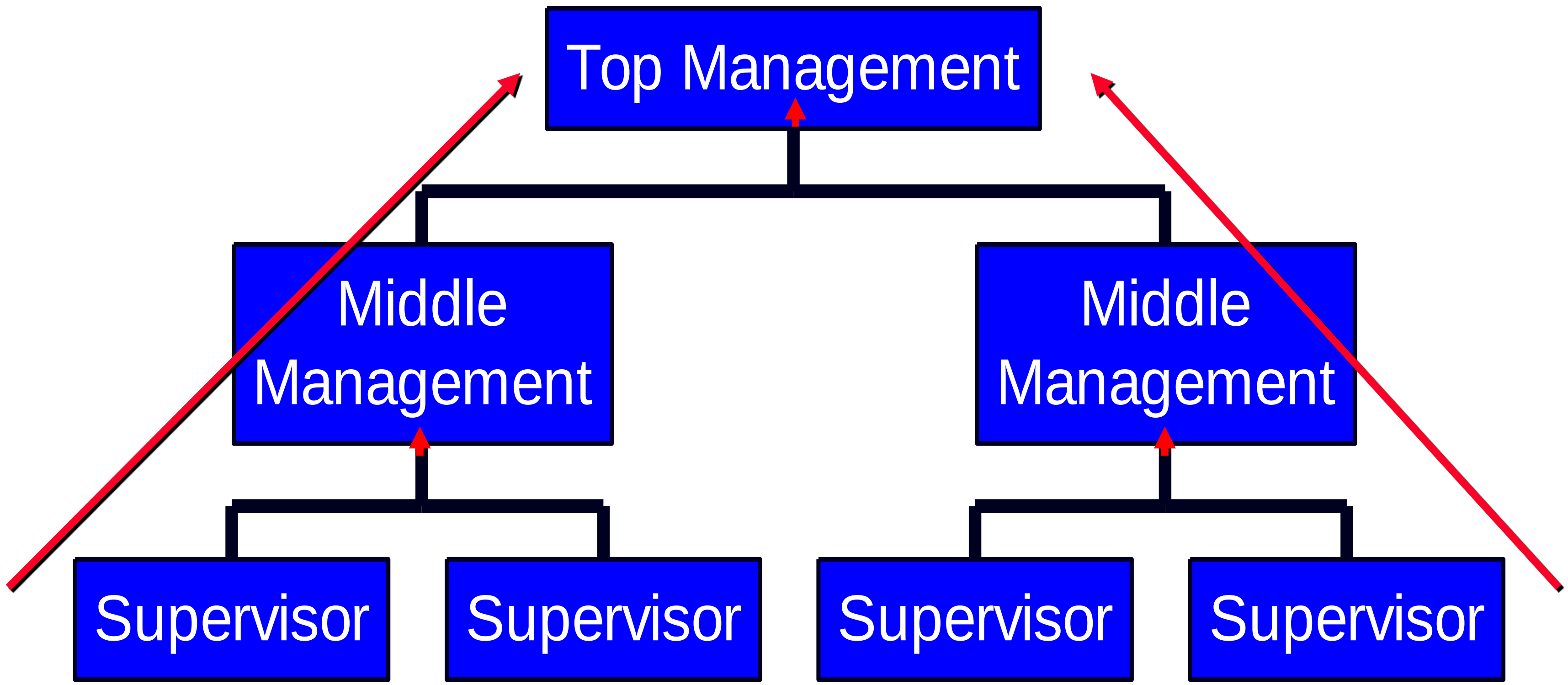
Choosing the Budget Period



Operating budgets ordinarily cover a one-year period corresponding to a company's fiscal year. Many companies divide their annual budget into four quarters.

A continuous budget is a 12-month budget that rolls forward one month (or quarter) as the current month (or quarter) is completed.

Self-Imposed Budget



A self-imposed budget or participative budget is a budget that is prepared with the full cooperation and participation of managers at all levels.

Advantages of Self-Imposed Budgets

1. Individuals at all levels of the organization are viewed as members of the team whose judgments are valued by top management.
2. Budget estimates prepared by front-line managers are often more accurate than estimates prepared by top managers.
3. Motivation is generally higher when individuals participate in setting their own goals than when the goals are imposed from above.
4. A manager who is not able to meet a budget imposed from above can claim that it was unrealistic. Self-imposed budgets eliminate this excuse.

Human Factors in Budgeting

The success of a budget program depends on three important factors:

1. Top management must be enthusiastic and committed to the budget process.
2. Top management must not use the budget to pressure employees or blame them when something goes wrong.
3. Highly achievable budget targets are usually preferred when managers are rewarded based on meeting budget targets.

The Master Budget: An Overview

A master budget is based on various estimates and assumptions. For example, the sales budget requires three estimates/assumptions as follows:

1. What are the budgeted unit sales?
2. What is the budgeted selling price per unit?
3. What percentage of accounts receivable will be collected in the current and subsequent periods.

Learning Objective

Prepare a sales budget, including a schedule of expected cash collections.

Budgeting Example

❶ Royal Company is preparing budgets for the quarter ending June 30th.

❷ Budgeted sales for the next five months are:

April	**20,000 units**
May	**50,000 units**
June	**30,000 units**
July	**25,000 units**
August	**15,000 units**

❸ The selling price is $10 per unit.

The Sales Budget

The individual months of April, May, and June are summed to obtain the total budgeted sales in units and dollars for the quarter ended June 30th

	April	May	June	Quarter
Budgeted sales in units	20,000	50,000	30,000	100,000
Selling price per unit	$ 10	$ 10	$ 10	$ 10
Total budgeted sales	$ 200,000	$ 500,000	$ 300,000	$ 1,000,000

Expected Cash Collections

- All sales are on account.
- Royal's collection pattern is:

  70% collected in the month of sale,

  25% collected in the month following sale,

  5% uncollectible.
- In April, the March 31st accounts receivable balance of $30,000 will be collected in full.

Expected Cash Collections

	April	May	June	Quarter
Accounts receivable 3/31	$ 30,000			$ 30,000
Total cash collections				

Quick Check ✓

What will be the total cash collections for the quarter?

a. $700,000

b. $220,000

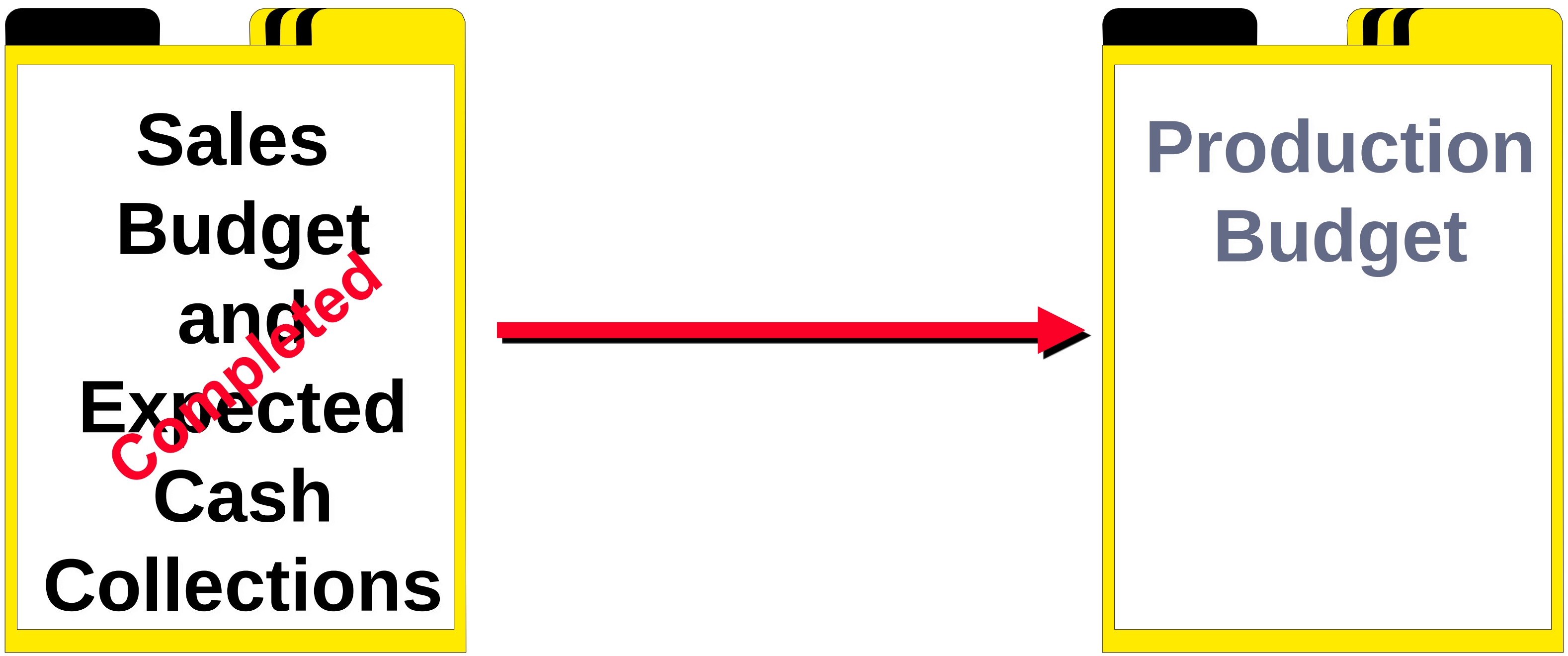
c. $190,000

d. $905,000

Learning Objective

Prepare a production budget.

The Production Budget



The production budget must be adequate to meet budgeted sales and to provide for the desired ending inventory.

The Production Budget

The management at Royal Company wants ending inventory to be equal to *20%* of the following month's budgeted sales in units.

On March 31st, 4,000 units were on hand.

Let's prepare the production budget.

If Royal was a merchandising company it would prepare a merchandise purchase budget instead of a production budget.

The Production Budget

	April	May	June	Quarter
Budgeted Sales	20,000	50,000	30,000	100,000
Add: Desired ending inventory				
Total Needs				
Less: Beginning inventory				
Required production				

Quick Check ✓

What is the required production for May?

a. 56,000 units

b. 46,000 units

c. 62,000 units

d. 52,000 units

The Production Budget

	April	May	June	Quarter
Budgeted Sales	20,000	50,000	30,000	100,000
Add: Desired ending inventory	10,000	6,000	5,000	5,000
Total Needs	30,000	56,000	35,000	105,000
Less: Beginning inventory	4,000	10,000	6,000	4,000
Required production	26,000	46,000	29,000	101,000

Assumed ending inventory

Format of the Cash Budget

The cash budget is divided into four sections:

1. Cash receipts section lists all cash inflows excluding cash received from financing;
2. Cash disbursements section consists of all cash payments excluding repayments of principal and interest;
3. Cash excess or deficiency section determines if the company will need to borrow money or if it will be able to repay funds previously borrowed; and
4. Financing section details the borrowings and repayments projected to take place during the budget period.

The Cash Budget

Assume the following information for Royal:

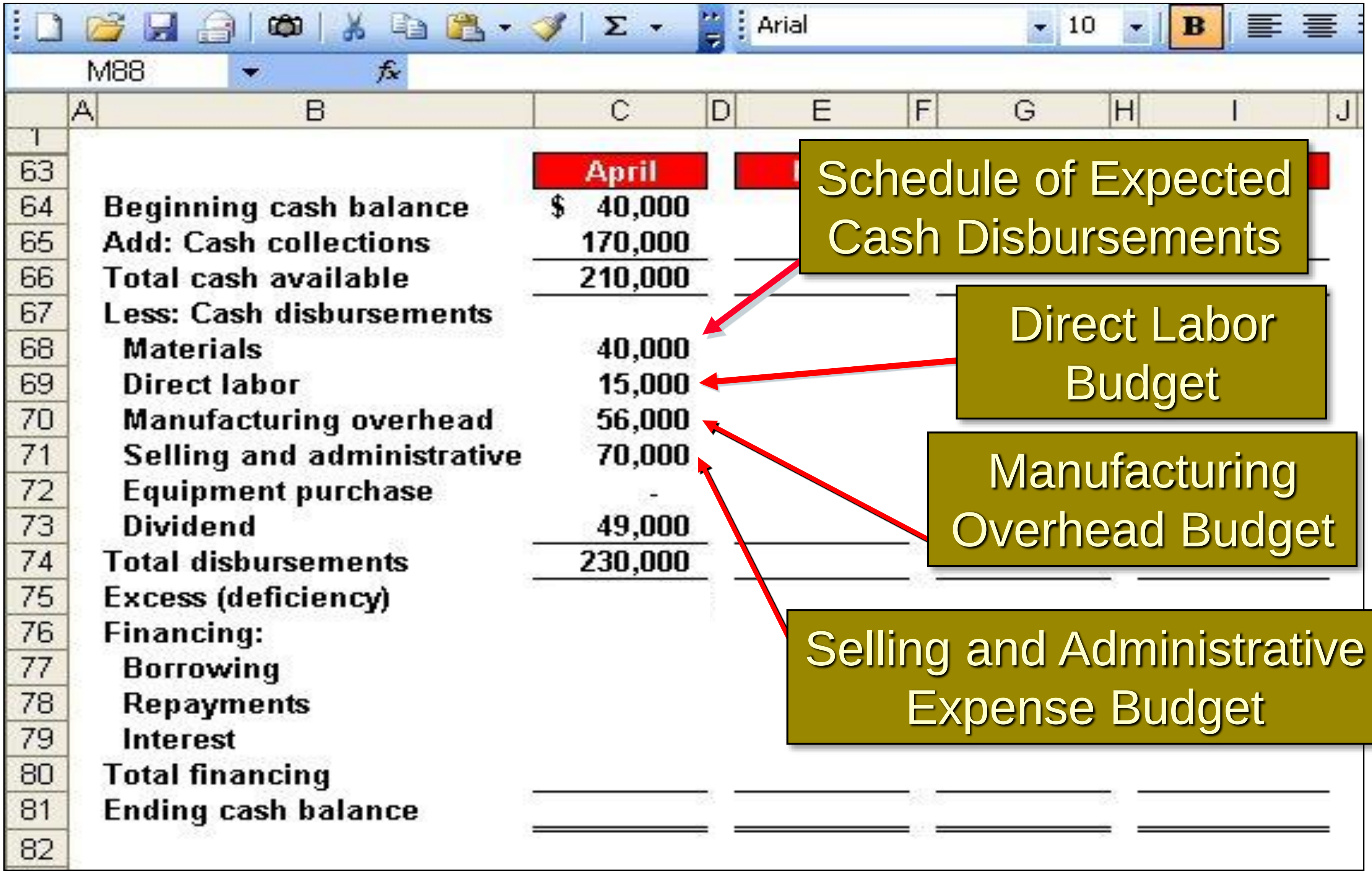
- Maintains a 16% open line of credit for $75,000.
- Maintains a minimum cash balance of $30,000.
- Borrows on the first day of the month and repays loans on the last day of the month.
- Pays a cash dividend of $49,000 in April.
- Purchases $143,700 of equipment in May and $48,300 in June (both purchases paid in cash).
- Has an April 1 cash balance of $40,000.

The Cash Budget

	April	May	June	Quarter
Beginning cash balance	$ 40,000			
Add: Cash collections	170,000			
Total cash available	210,000			
Less: Cash disbursements				
Materials				
Direct labor				
Manufacturing overhead				
Selling and administrative				
Dividend				
Total disbursements				
Excess (deficiency)				
Financing:				
Borrowing				
Repayments				
Interest				
Total financing				
Ending cash balance				

Schedule of Expected Cash Collections

The Cash Budget



	April
Beginning cash balance	$ 40,000
Add: Cash collections	170,000
Total cash available	210,000
Less: Cash disbursements	
Materials	40,000
Direct labor	15,000
Manufacturing overhead	56,000
Selling and administrative	70,000
Equipment purchase	-
Dividend	49,000
Total disbursements	230,000
Excess (deficiency)	
Financing:	
Borrowing	
Repayments	
Interest	
Total financing	
Ending cash balance	

The Cash Budget

M88

	B	April	May	June	Quarter
64	Beginning cash balance	$ 40,000			
65	Add: Cash collections	170,000			
66	Total cash available	210,000			
67	Less: Cash disbursements				
68	Materials	40,000			
69	Direct labor	15,000			
70	Manufacturing overhead	56,000			
71	Selling and administrative	70,000			
72	Equipment purchase	-			
73	Dividend	49,000			
74	Total disbursements	230,000			
75	Excess (deficiency)	(20,000)			
76	Financing:				
77	Borrowing				
78	Repayments				
79	Interest				
80	Total financing				
81	Ending cash balance				

Because Royal maintains a cash balance of $30,000, the company must borrow $50,000 on its line-of-credit.

The Cash Budget

	April	May	June	Quarter
Beginning cash balance	$ 40,000			
Add: Cash collections	170,000			
Total cash available	210,000			
Less: Cash disbursements				
Materials	40,000			
Direct labor	15,000			
Manufacturing overhead	56,000			
Selling and administrative	70,000			
Equipment purchase	-			
Dividend	49,000			
Total disbursements	230,000			
Excess (deficiency)	(20,000)			
Financing:				
Borrowing	50,000			
Repayments	-			
Interest	-			
Total financing	50,000			
Ending cash balance	$ 30,000			

Because Royal maintains a cash balance of $30,000, the company must borrow $50,000 on its line-of-credit.

Ending cash balance for April is the beginning May balance.

The Cash Budget

	April	May	June	Quarter
Beginning cash balance	$ 40,000	$ 30,000		
Add: Cash collections	170,000	400,000		
Total cash available	210,000	430,000		
Less: Cash disbursements				
Materials	40,000	72,300		
Direct labor	15,000	23,000		
Manufacturing overhead	56,000	76,000		
Selling and administrative	70,000	85,000		
Equipment purchase	-	143,700		
Dividend	49,000	-		
Total disbursements	230,000	400,000		
Excess (deficiency)	(20,000)	30,000		
Financing:				
Borrowing	50,000	-		
Repayments	-	-		
Interest	-	-		
Total financing	50,000	-		
Ending cash balance	$ 30,000	$ 30,000		

Quick Check ✓

What is the excess (deficiency) of cash available over disbursements for June?

a. $ 85,000

b. $(10,000)

c. $ 75,000

d. $ 95,000

The Cash Budget

$50,000 × 16% × 3/12 = $2,000
(Borrowings on April 1 and repayment on June 30)

		April	May	June	Quarter
64	Beginning cash balance	$ 40,000	$ 30,000	$ 30,000	$ 40,000
65	Add: Cash collections	170,000	400,000	335,000	905,000
66	Total cash available	210,000	430,000	365,000	945,000
67	Less: Cash disbursements				
68	Materials	40,000	72,300	72,700	185,000
69	Direct labor	15,000	23,000	15,000	53,000
70	Manufacturing overhead	56,000	76,000	59,000	191,000
71	Selling and administrative	70,000	85,000	75,000	230,000
72	Equipment purchase	-	143,700	48,300	192,000
73	Dividend	49,000	-	-	49,000
74	Total disbursements	230,000	400,000	270,000	900,000
75	Excess (deficiency)	(20,000)	30,000	95,000	45,000
76	Financing:				
77	Borrowing	50,000	-		50,000
78	Repayments	-	-	(50,000)	(50,000)
79	Interest	-	-	(2,000)	(2,000)
80	Total financing	50,000	-	(52,000)	(2,000)
81	Ending cash balance	$ 30,000	$ 30,000	$ 43,000	$ 43,000