8-56 Comprehensive Profit Plan (90 minutes)

1. Sales Budget

Spring Manufacturing Company
Sales Budget
2007

	C12	D57	Total
Sales (in units)	12,000	9,000	21,000
x Selling Price Per Unit	$150	$220	
Total Sales Revenue	**$1,800,000**	**$1,980,000**	**$3,780,000**

2. Production Budget

Spring Manufacturing Company
Production Budget
2007

		C12	D57
	Budgeted Sales (in units)	12,000	9,000
+	Desired finished goods ending inventory	300	200
	Total units needed	12,300	9,200
–	Beginning finished goods inventory	400	150
	Budgeted Production (in units)	**11,900**	**9,050**

8-56 (Continued-1)

3. Direct Materials Purchases Budget

Spring Manufacturing Company
Direct Materials Purchases Budget (units and dollars)
2007

	C12	D57	Total
Raw Material (RM) 1:			
Budgeted Production	11,900	9,050	
Pounds per Unit	x 10	x 8	
RM 1 needed for production	119,000	72,400	191,400
Plus: Desired Ending Inventory (lbs.)			4,000
Total RM 1 needed (lbs.)			195,400
Less: Beginning inventory (lbs.)			3,000
Required purchases of RM 1 (lbs.)			**192,400**
Cost per pound			$2.00
Budgeted purchases, RM 1			**$384,800**
Raw Material (RM) 2:			
Budgeted Production	11,900	9,050	
Pounds per Unit	x 0	x 4	
RM 2 needed for production	0	36,200	36,200
Plus: Desired Ending Inventory (lbs.)			1,000
Total RM 2 needed (lbs.)			37,200
Less: Beginning inventory (lbs.)			1,500
Required purchases of RM 2 (lbs.)			**35,700**
Cost per pound			$2.50
Budgeted purchases, RM 2			**$89,250**
Raw Material 3:			
Budgeted Production	11,900	9,050	
Pounds per Unit	x 2	x 1	
RM 3 needed for production	23,800	9,050	32,850
Plus: Desired Ending Inventory (lbs.)			1,500
Total RM 3 needed (lbs.)			34,350
Less: Beginning inventory (lbs.)			1,000
Required purchases of RM 3 (lbs.)			**33,350**
Cost per pound			$0.50
Budgeted purchases, RM 3			**$16,675**

8-56 (Continued-2)

4. Direct Manufacturing Labor Budget

Spring Manufacturing Company
Direct Labor Budget
2007

	C12	D57	Total
Budgeted production	11,900	9,050	
Direct labor hours per unit	x 2	x 3	
Total direct labor hours needed	23,800	27,150	50,950
Hourly wage rate			$25.00
Budgeted direct labor costs			**$1,273,750**

5. Factory Overhead Budget

Spring Manufacturing Company
Factory Overhead Budget
2007

Variable Factory Overhead:		
Indirect materials	$10,000	
Miscellaneous supplies and tools	5,000	
Indirect labor	40,000	
Payroll taxes and fringe benefits	250,000	
Maintenance costs	10,080	
Heat, light, and power	11,000	$326,080
Fixed Factory Overhead:		
Supervision	$120,000	
Maintenance costs	20,000	
Heat, light, and power	43,420	
Total Cash Fixed Factory Overhead	$183,420	
Depreciation	71,330	$254,750
Total Budgeted Factory Overhead		**$580,830**

8-56 (Continued-3)

6. Budgeted Cost of Goods Sold

Spring Manufacturing Company
Ending Finished Goods Inventory and Budgeted CGS
2007

	C12	D57	Total
Sales volume	12,000	9,000	21,000
Cost per unit (Schedule 1 and 2)	$93.80	$135.70	
Cost of goods sold	$1,125,600	$1,221,300	**$2,346,900**
Finished goods ending inventory	300	200	
Cost per unit (Schedule 1 and 2)	$93.80	$135.70	
Budgeted ending inventories	$28,140	$27,140	**$55,280**

Schedule 1: Cost per Unit--Product C12:

	Inputs		Cost
Cost Element	Unit Input Cost	Quantity	Per Unit
RM-1	$2.00	10	$20.00
RM-3	$0.50	2	$1.00
Direct labor	$25.00	2	$50.00
Variable factory OH ($326,080/50,950)	$6.40	2	$12.80
Fixed factory OH ($254,750/50,950)	$5.00	2	$10.00
Manufacturing cost per unit			**$93.80**

Schedule 2: Cost per Unit--Product D57:

	Inputs		Cost
Cost Element	Unit Input Cost	Quantity	Per Unit
RM-1	$2.00	8	$16.00
RM-2	$2.50	4	$10.00
RM-3	$0.50	1	$0.50
Direct labor	$25.00	3	$75.00
Variable factory OH ($326,080/50,950)	$6.40	3	$19.20
Fixed factory OH ($254,750/50,950)	$5.00	3	$15.00
Manufacturing cost per unit			**$135.70**

8-56 (Continued-4)

7. Budgeted selling and administrative expenses:

Spring Manufacturing Company
Selling and Administrative Expense Budget
2007

Selling Expenses:		
Advertising	$60,000	
Sales salaries	200,000	
Travel and entertainment	60,000	
Depreciation	5,000	$325,000
Administrative expenses:		
Offices salaries	$60,000	
Executive salaries	250,000	
Supplies	4,000	
Depreciation	6,000	$320,000
Total selling and administrative expenses		**$645,000**

8. Budgeted Income Statement:

Spring Manufacturing Company
Budget Income Statement
For the Year 2007

	C12	D57	Total
Sales (part 1)	$1,800,000	$1,980,000	$3,780,000
Cost of goods sold (part 6)	1,125,600	1,221,300	2,346,900
Gross profit	$674,400	$758,700	$1,433,100
Selling and administrative expenses (part 7)			$645,000
Pre-tax operating income			$788,100
Income taxes (@40%)			$315,240
After-tax operating income			**$472,860**

8-66 Cash Budget (45-50 minutes)

	Quarters				
	I	II	III	IV	Year
Cash balance, beginning	$30,000	***$38,000***	***$30,520***	***$30,770***	***$30,000***
Plus: Cash receipts:					
Collections from customers	425,000	***437,000***	***479,480***	460,000	***1,801,480***
Equipment disposal	***0***	***0***	***0***	***5,000***	***5,000***
Total cash available = (A)	***$455,000***	$475,000	$510,000	***$495,770***	***$1,836,480***
Cash disbursements:					
Raw material purchases	$200,000	$220,000	***$250,000***	$270,000	$940,000
Payroll	***117,000***	120,000	115,000	***122,000***	474,000
S, G, & A expenses	60,000	62,000	58,000	64,000	***244,000***
Equipment purchase	***20,000***	***30,000***	***30,000***	***0***	***80,000***
Bond interest (@9%)	***0***	***11,250***	***0***	***11,250***	***22,500***
Bond sinking fund payment	***0***	***20,000***	***0***	***0***	***20,000***
Income taxes	20,000	21,000	25,000	18,000	***84,000***
Total cash disbursements, prior to financing = (B)	***$417,000***	***$484,250***	***$478,000***	***$485,250***	***$1,864,500***
Plus: Minimum cash balance	***$30,000***	***$30,000***	***$30,000***	***$30,000***	***$30,000***
Total cash needed = (C)	***$447,000***	***$514,250***	***$508,000***	***$515,250***	***$1,894,500***
Excess cash (cash deficiency), prior to financing (D) = (A) - (C)	***$8,000***	***($39,250)***	***$2,000***	***($19,480)***	***$(58,020)***
Financing:					
Short-term borrowing	$0	***$41,000***	***$0***	***$22,000***	***$63,000***
Repayment (principal)	***$0***	***$0***	***$0***	***$0***	***$0***
Interest (@12%)	***$0***	***($1,230)***	***($1,230)***	***($1,890)***	***($4,350)***
Total Effects of Financing = (E)	***$0***	***$39,770***	***($1,230)***	***$20,110***	***$58,650***
Ending cash balance = (A) - (B) + (E)	$38,000	***$30,520***	***$30,770***	***$30,630***	***$30,630***