

Problem 9-22 (90 minutes)

1.	<i>April</i>	<i>May</i>	<i>June</i>	<i>Quarter</i>
Budgeted sales.....	20,000	35,000	50,000	105,000
Add desired ending inventory*	<u>7,000</u>	<u>10,000</u>	<u>9,000</u>	<u>9,000</u>
Total needs	27,000	45,000	59,000	114,000
Less beginning inventory	<u>4,000</u>	<u>7,000</u>	<u>10,000</u>	<u>4,000</u>
Required production	<u>23,000</u>	<u>38,000</u>	<u>49,000</u>	<u>110,000</u>

*20% of the next month's sales.

2. Material #208:	<i>April</i>	<i>May</i>	<i>June</i>	<i>Quarter</i>
Required production— units	23,000	38,000	49,000	110,000
Material #208 per unit.....	<u>× 4 kgs.</u>	<u>× 4 kgs.</u>	<u>× 4 kgs.</u>	<u>× 4 kgs.</u>
Production needs— kilograms	92,000	152,000	196,000	440,000
Add desired ending inventory*	<u>76,000</u>	<u>98,000</u>	<u>84,000</u>	<u>84,000</u>
Total needs—kilograms	168,000	250,000	280,000	524,000
Less beginning inventory .	<u>46,000</u>	<u>76,000</u>	<u>98,000</u>	<u>46,000</u>
Required purchases— kilograms	<u>122,000</u>	<u>174,000</u>	<u>182,000</u>	<u>478,000</u>
Required purchases at \$5.00 per kilogram.....	<u>\$610,000</u>	<u>\$870,000</u>	<u>\$910,000</u>	<u>\$2,390,000</u>

* 50% of the following month's production needs. For June: July production 45,000 + 6,000 – 9,000 = 42,000 units; 42,000 units × 4 kgs. per unit = 168,000 kgs.; 168,000 kgs. × 50% = 84,000 kgs.

Problem 9-22 (continued)

Material #311:	<i>April</i>	<i>May</i>	<i>June</i>	<i>Quarter</i>
Required production— units	23,000	38,000	49,000	110,000
Material #311 per unit.....	<u>× 9 mt.</u>	<u>× 9 mt.</u>	<u>× 9 mt.</u>	<u>× 9 mt.</u>
Production needs—metres	207,000	342,000	441,000	990,000
Add desired ending inventory*	<u>114,000</u>	<u>147,000</u>	<u>126,000</u>	<u>126,000</u>
Total needs—metres	321,000	489,000	567,000	1,116,000
Less beginning inventory..	<u>69,000</u>	<u>114,000</u>	<u>147,000</u>	<u>69,000</u>
Required purchases— metres	<u>252,000</u>	<u>375,000</u>	<u>420,000</u>	<u>1,047,000</u>
Required purchases at \$2.00 per metre.....	<u>\$504,000</u>	<u>\$750,000</u>	<u>\$840,000</u>	<u>\$2,094,000</u>

* 1/3 of the following month's production needs. For June:
 July production 45,000 + 6,000 – 9,000 = 42,000 units;
 42,000 units × 9 mt. per unit = 378,000 mt.;
 378,000 mt. × 1/3 = 126,000 mt.

3. Direct labour budget:

<i>Direct Labour</i>					
<i>Hours</i>					
	<i>Units</i>	<i>Per</i>		<i>Cost per</i>	
	<i>Produced</i>	<i>Unit</i>	<i>Total</i>	<i>DLH</i>	<i>Total Cost</i>
Shaping	110,000	0.25	27,500	\$18.00	\$ 495,000
Assembly	110,000	0.70	77,000	\$16.00	1,232,000
Finishing	110,000	0.10	<u>11,000</u>	\$20.00	<u>220,000</u>
			<u>115,500</u>		<u>\$1,947,000</u>

Problem 9-22 (continued)

4. Manufacturing overhead budget:

Expected production for the year	250,000
Actual production through March 31	<u>32,000</u>
Expected production, April through December	218,000
Variable manufacturing overhead rate per unit (\$112,000 ÷ 32,000 units)	<u>× \$3.50</u>
Variable manufacturing overhead	\$ 763,000
Fixed manufacturing overhead (\$4,628,000 × 9/12) ..	<u>3,471,000</u>
Total manufacturing overhead	4,234,000
Less depreciation (\$2,910,000 × 9/12)	<u>2,182,500</u>
Cash disbursement for manufacturing overhead	<u><u>\$2,051,500</u></u>

Case 9-26 (120+ minutes)

1. a. Sales budget:	<i>April</i>	<i>May</i>	<i>June</i>	<i>Quarter</i>
Budgeted sales in units	35,000	45,000	60,000	140,000
Selling price per unit ...	<u>× \$8</u>	<u>× \$8</u>	<u>× \$8</u>	<u>× \$8</u>
Total sales	<u>\$280,000</u>	<u>\$360,000</u>	<u>\$480,000</u>	<u>\$1,120,000</u>

b. Schedule of expected cash collections:

February sales	\$ 48,000			\$ 48,000
March sales	112,000	\$ 56,000		168,000
April sales.....	70,000	140,000	\$ 70,000	280,000
May sales		90,000	180,000	270,000
June sales.....			<u>120,000</u>	<u>120,000</u>
Total cash collections...	<u>\$230,000</u>	<u>\$286,000</u>	<u>\$370,000</u>	<u>\$ 886,000</u>

c. Merchandise purchases budget:

Budgeted sales in units	35,000	45,000	60,000	140,000
Add budgeted ending inventory*.....	<u>40,500</u>	<u>54,000</u>	<u>36,000</u>	<u>36,000</u>
Total needs.....	75,500	99,000	96,000	176,000
Less beginning inventory	<u>31,500</u>	<u>40,500</u>	<u>54,000</u>	<u>31,500</u>
Required unit purchases	44,000	58,500	42,000	144,500
Unit cost.....	<u>× \$5</u>	<u>× \$5</u>	<u>× \$5</u>	<u>× \$5</u>
Required dollar purchases	<u>\$220,000</u>	<u>\$292,500</u>	<u>\$210,000</u>	<u>\$ 722,500</u>

*90% of the next month's sales in units.

Case 9-26 (continued)

d. Budgeted cash disbursements for merchandise purchases:

	<i>April</i>	<i>May</i>	<i>June</i>	<i>Quarter</i>
March purchases	\$ 85,750			\$ 85,750
April purchases	110,000	\$110,000		220,000
May purchases		146,250	\$146,250	292,500
June purchases	_____	_____	<u>105,000</u>	<u>105,000</u>
Total cash disbursements	<u>\$195,750</u>	<u>\$256,250</u>	<u>\$251,250</u>	<u>\$ 703,250</u>

Case 9-26 (continued)

2. Formalwear Sales Company
 Cash Budget
 For the Three Months Ending June 30

	<i>April</i>	<i>May</i>	<i>June</i>	<i>Quarter</i>
Cash balance, beginning..	\$ 14,000	\$ 10,250	\$ 10,000	\$ 14,000
Add receipts from customers (Part 1 b.)....	<u>230,000</u>	<u>286,000</u>	<u>370,000</u>	<u>886,000</u>
Total cash available	<u>244,000</u>	<u>296,250</u>	<u>380,000</u>	<u>900,000</u>
Less disbursements:				
Purchase of inventory (Part 1 d.)	195,750	256,250	251,250	703,250
Sales commissions.....	35,000	45,000	60,000	140,000
Salaries and wages.....	22,000	22,000	22,000	66,000
Utilities	14,000	14,000	14,000	42,000
Miscellaneous.....	3,000	3,000	3,000	9,000
Dividends paid	12,000	0	0	12,000
Land purchases.....	<u>0</u>	<u>25,000</u>	<u>0</u>	<u>25,000</u>
Total disbursements	<u>281,750</u>	<u>365,250</u>	<u>350,250</u>	<u>997,250</u>
Excess (deficiency) of receipts over disbursements.....	<u>(37,750)</u>	<u>(69,000)</u>	<u>29,750</u>	<u>(97,250)</u>
Financing:				
Borrowings	48,000	79,000	0	127,000
Repayments*	0	0	(16,000)	(16,000)
Interest*	<u>0</u>	<u>0</u>	<u>(3,020)</u>	<u>(3,020)</u>
Total financing	<u>48,000</u>	<u>79,000</u>	<u>(19,020)</u>	<u>107,980</u>
Cash balance, ending	<u>\$ 10,250</u>	<u>\$ 10,000</u>	<u>\$ 10,730</u>	<u>\$ 10,730</u>

* This is the maximum amount (in increments of \$1,000) that the company could repay to the bank and still have at least a \$10,000 ending balance.

** $\$48,000 \times 1\% \times 3 = \$1,440$
 $\$79,000 \times 1\% \times 2 = \underline{1,580}$
 Total interest = \$3,020

Case 9-26 (continued)

3. Formalwear Sales Company
 Budgeted Income Statement
 For the Three Months Ended June 30

Sales revenue (Part 1 a.)		\$1,120,000
Variable expenses:		
Cost of goods sold		
(140,000 ties @ \$5 per tie).....	\$700,000	
Commissions		
(140,000 ties @ \$1 per tie).....	<u>140,000</u>	<u>840,000</u>
Contribution margin.....		280,000
Fixed expenses:		
Wages and salaries	66,000	
Utilities.....	42,000	
Insurance expired	3,600	
Depreciation	4,500	
Miscellaneous	<u>9,000</u>	<u>125,100</u>
Operating income.....		154,900
Less interest expense		<u>3,020</u>
Net income		<u>\$ 151,880</u>

Case 9-26 (continued)

4. Formalwear Sales Company
 Budgeted Balance Sheet
 June 30

Assets

Cash (Part 2)	\$ 10,730
Accounts receivable (see below).....	450,000
Inventory (36,000 ties @ \$5 per tie).....	180,000
Unexpired insurance (\$14,400 – \$3,600)	10,800
Fixed assets, net of depreciation (\$172,700 + \$25,000 – \$4,500).....	<u>193,200</u>
Total assets.....	<u>\$844,730</u>

Liabilities and Shareholders' Equity

Accounts payable, purchases (50% × \$210,000 from Part 1 c.).....	\$105,000
Dividends payable	12,000
Loans payable, bank (Part 2; \$127,000 – \$16,000)....	111,000
Common stock	300,000
Retained earnings (see below)	<u>316,730</u>
Total liabilities and equity.....	<u>\$844,730</u>

Accounts receivable at June 30:

25% × May sales of \$360,000	\$ 90,000
75% × June sales of \$480,000	<u>360,000</u>
Total	<u>\$450,000</u>

Retained earnings at June 30:

Balance, March 31	\$176,850
Add net income (Part 3).....	<u>151,880</u>
Total	328,730
Less dividends declared.....	<u>12,000</u>
Balance, June 30	<u>\$316,730</u>