

Budgeting Practice Quiz 13

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44. The Sledge Hammer Company manufactures a line of high quality tools. The company sold 1,000,000 hammers at a price of \$4 per unit last year. The company estimates that this volume represents a 20% share of the current hammers market. The market is expected to increase by 5%. Marketing specialists have determined that, as a result of a new advertising campaign and packaging, the company will increase its share of this larger market to 24%. Due to changes in prices, the new price for the hammer will be \$4.30 per unit. This new price is expected to be in line with the competition and have no effect on the volume estimates. What are the estimated sales revenues in the coming year?

- A. \$5,040,000.
- B. \$5,160,000.
- C. \$5,418,000.
- D. \$5,689,000.

$1,000,000 / .2 = 5,000,000$; $5,000,000 \times 1.05 = 5,250,000$ new market size; $5,250,000 \times .24 = 1,260,000$ sales (units); $1,260,000 \times \$4.30 = \$5,418,000$

AACSB: Analytic
AICPA: FN-Decision Making
Bloom's: Analysis
Difficulty: Hard
Learning Objective: 3
Topic Area: Sales Forecasting

LO3

$$\frac{20\% \times \text{current market}}{20\%} = \frac{1,000,000 \text{ hammers}}{20\%}$$

$$\text{current market} = 5,000,000 \text{ hammers}$$

$$\times 1.05 \text{ [5\% increase]}$$

$$\underline{5,250,000 \text{ hammers. [new market size]}}$$

$$\times 24\%$$

$$\underline{1,260,000 \text{ hammers [SHC's share of new market]}}$$

$$\times \$4.30 \text{ [new price]}$$

$$\underline{\underline{\$5,418,000}} \text{ Estimate Sales Revenue.}$$

45. TRS is a large securities dealer. Last year, the company made 120,000 trades with an average commission of \$120. Because of the general economic climate, TRS expects trade volume to decline by 20%. Fortunately, the average commission per trade is likely to increase by 10% because trades are expected to be large in the coming year. What are the estimated commission's revenues for TRS in the coming year?

A. \$11,520,000

B. \$12,672,000

C. \$15,552,000

D. \$15,840,000

$$100\% + 10\% = 110\% \\ \text{increase}$$

$$100\% - 20\% = 80\% \\ \text{decline}$$

$$[(120,000 \times .80) \times (\$120 \times 1.10)] = \$12,672,000$$

AACSB: Analytic

AICPA: FN-Decision Making

Bloom's: Analysis

Difficulty: Hard

Learning Objective: 3

Topic Area: Sales Forecasting

LO3

$$120,000 \\ \times (100\% - 20\%) \text{ decline}$$

$$\hline 96,000$$

$$\times \$120 \text{ avg. commission/trade}$$

$$\times (100\% + 10\%) \text{ increase}$$

$$\hline \$12,672,000$$

Estimated,
commission's revenues.

46. TLC Credit, Inc. has \$35.0 million in consumer loans with an average interest rate of 12.0%. The bank also has \$30.0 million in home equity loans with an average interest rate of 8.0%. Finally, the bank owns \$5.0 million in corporate securities with an average interest rate of 6%. Next year, consumer loans will increase to \$40.0 million because of a rate decrease to 10.0%, while home equity loans will increase to \$32.0 million at an average interest rate of 6.5%. Unfortunately, the investment in corporate securities will decrease by 20% and the average interest rate will be only 9.0%. What is TLC's estimated change in revenues next year?

A. \$460,000 decrease

B. \$460,000 increase

C. \$700,000 increase

D. \$700,000 decrease

$$[(\$35.0\text{m} \times .12) + (\$30.0\text{m} \times .08) + (\$5.0\text{m} \times .06)] - [(\$40.0\text{m} \times .10) + (\$32.0\text{m} \times .065) + (\$4.0 \times .09)] = \$6,900,000 - \$6,440,000 = \$460,000 \text{ decrease}$$

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AICPA: FN-Decision Making

Bloom's: Analysis

Difficulty: Hard

Learning Objective: 3

Topic Area: Sales Forecasting

LO3

consumer
loans

Principal	Interest Rate
\$35 M	12%
$\underline{\$4.2 \text{ M}}$	

home equity
loans

\$30 M	8%
$\underline{\$2.4 \text{ M}}$	

corporate
securities

\$5 M	6%
$\underline{\$0.3 \text{ M}}$	

Next
year

$$\$40 \text{ M} \times 10\% = \underline{\$4.0 \text{ M}}$$

$$\$32 \text{ M} \times 6.5\% = \underline{\$2.08 \text{ M}}$$

$$[\$5 \text{ M} \times 80\%] \times 9\% = \underline{\$.36 \text{ M}}$$

\$6.90M

6.44M

$$\Delta = \$460,000 \text{ decrease}$$

Hawle Manufacturing Company is in the process of preparing its 2010 budget and is anticipating the following changes:

30% increase in the number of units sold

20% increase in the direct material unit cost

15% increase in the direct labor cost per unit

10% increase in the manufacturing overhead cost per unit

14% increase in the selling price

7% increase in the administrative expenses

Hawle does not keep any units in inventory.

The composition of the cost of finished products during 2010 for materials, direct labor and factory overhead, respectively, was in the ratio of 3 to 2 to 1. The condensed income statement for 2009 is as follows:

Sales (30,000 units)	\$450,000	
Less sales returns	<u>13,500</u>	
Net sales	436,500	
Cost of Goods Sold	<u>306,000</u>	
Gross Profit		\$130,500
Selling Expenses	\$ 60,000	
Admin. Expenses	<u>30,000</u>	<u>90,000</u>
Net Income		<u>\$ 40,500</u>

out of 6

$$\begin{aligned}
 3/6 \text{ DM} &= 153,000 \times 1.20 = 183,600 \\
 2/6 \text{ DL} &= 102,000 \times 1.15 = 117,300 \\
 1/6 \text{ MOH} &= 51,000 \times 1.10 = 56,100 \\
 \hline
 &= \$357,000
 \end{aligned}$$

48. What is the estimated cost of goods sold for 2010 assuming the number of units sold does not change?

A. \$464,100

B. \$402,900

C. \$397,800

D. \$357,000

$\$306,000/6 = \$51,000$ overhead; $\$102,000$ labor; $\$153,000$ material; Overhead: $\$51,000 \times 1.10 = \$56,100$; Labor: $\$102,000 \times 1.15 = \$117,300$; Material: $\$153,000 \times 1.20 = \$183,600$; $\$56,100 + \$117,300 + \$183,600 = \$357,000$

AACSB: Analytic

AICPA: FN-Decision Making

Bloom's: Analysis

Difficulty: Hard

Learning Objective: 4

Topic Area: Forecasting Production Costs

LO4

The Task Company is to begin operations in April. They have budgeted April sales of \$30,000. May sales of \$34,000, June sales of \$40,000, July sales of \$42,000, and August sales of \$38,000. 10% of each month's sales will represent cash sales; 75% of the balance will be collected in the month following the sale, 17% the second month, 6% the third month and the balance is bad debts.

59. What is the amount of cash to be collected in the month of August?

- A. \$40,106
- B. \$40,340
- C. \$38,036
- D. \$44,140

$$(\$38,000 \times .10) + (\$42,000 \times .90 \times .75) + (\$40,000 \times .90 \times .17) + (\$34,000 \times .90 \times .06) = \$40,106$$

AACSB: Analytic

AICPA: FN-Decision Making

Bloom's: Analysis

Difficulty: Hard

Learning Objective: 5

Topic Area: Using Cash Flow Budgets to Estimate Cash Needs

LOS

	Apr.	May	June	July	Aug
Budgeted Sales	30,000	34,000	40,000	42,000	38,000

cash collected

$38,000 \times 10\%$ cash
 $90\% \times 42,000 \times 75\%$ July
 $90\% \times 40,000 \times 17\%$ June
 $90\% \times 34,000 \times 6\%$ May

38,000
 28,350
 6,120
 1,836

 40,106

cash collected in August. 5

60. Assume the Task Company charges $1\frac{1}{2}\%$ on any balance that is not collected in the month following the month of sale. This charge will also change the collection percentages to 15% cash sales, 80% of the balance collected in the month following the sale, 16% the second month, 3% the third month. This stricter credit policy will reduce the estimated sales budgets by 7% each month. What is the amount of cash to be collected in July?

- A. \$39,199
B. \$35,312
C. \$38,193
D. \$36,242

$100\% - 7\% = 93\%$ of budgeted sales reduction

$$\begin{aligned} & \$42,000 \times .93 = \$39,060; \$40,000 \times .93 = \$37,200; \$34,000 \times .93 = \$31,620; \$30,000 \times .93 = \$27,900; \\ & (\$39,060 \times .15) + (\$37,200 \times .85 \times .80) + (\$31,620 \times .85 \times .16 \times 1.015) + (\$27,900 \times .85 \times .03 \times 1.015) = \$36,242 \end{aligned}$$

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AICPA: FN-Decision Making

Bloom's: Analysis

Difficulty: Hard

Learning Objective: 5

Topic Area: Using Cash Flow Budgets to Estimate Cash Needs

LO 5

	Apr	May	June	July	Aug
Budgeted Sales	30,000	34,000	40,000	42,000	38,000

cash collected

$93\% \times 15\% \times 42,000$	cash
$93\% \times 80\% \times 40,000 \times 85\%$	June
$1.015 \times 93\% \times 16\% \times 34,000 \times 85\%$	May
$1.015 \times 93\% \times 3\% \times 30,000 \times 85\%$	April

5,859 July Cash
25,296 June
4,365 May
722

\$36,242

cash collected in July

64. The Richburn Manufacturing Company increased its merchandise inventory by \$17,000 over the year. The company also granted its customers more liberal credit terms which increased the accounts receivable by \$37,500. Sales were \$975,000 and the accounts payable decreased by \$27,500. The gross profit on sales is 45%. Selling and administrative expenses were \$145,000; this included depreciation expense of \$4,000. What were the cash disbursements for the year?

A. \$721,750.

B. \$706,500.

C. \$689,500.

D. \$599,750.

COGS: $\$975,000 (1 - .45) = \$536,250$; inventory purchases = COGS + increase in inventory = $\$536,250 + \$17,000 = \$553,250$; cash paid on payables = purchases + decrease in payables = $\$553,250 + \$27,500 = \$580,750$; cash disbursements = cash paid on payables + cash paid for expenses = $\$580,750 + (\$145,000 - \$4,000) = \$721,750$

AACSB: Analytic

AICPA: FN-Decision Making

Bloom's: Analysis

Difficulty: Hard

Learning Objective: 5

Topic Area: Using Cash Flow Budgets to Estimate Cash Needs

LOS

100%	Sales
55%	- CGS
45%	GP
	- S+A
	NI

$$\begin{aligned} &\$975,000 \\ &(\$975,000 \times 55\%) = 536,250 \\ &(\$975,000 \times 45\%) = 438,750 \\ &\$145,000 \end{aligned}$$

Expenditures \$141,000
noncash \$4,000
deprec

+ FG Inv. -	+ Accts. Receivable -	- Accts. Payable +
<div> <div>553,250</div> <div>purchases</div> <div>17,000</div> <div>BB increased by 17,000</div> </div>	<div> <div>536,250</div> <div>CGS</div> <div>37,500</div> </div>	<div> <div>27,500</div> <div>27,500 cash paid on purchases</div> <div>+ 553,250 purchases</div> <div>580,750</div> </div>
		<div> <div>721,750 disbursements</div> </div>

T. Jackson Retail seeks your assistance to develop cash and other budget information for May, June, and July. At April 30, the company had cash of \$5,500, accounts receivable of \$437,000, inventories of \$309,400, and accounts payable of \$133,055. The budget is to be based on the following assumptions:

SALES:

Each month's sales are billed on the last day of the month. Customers are allowed a 3% discount if payment is made within 10 days after the billing date. Receivables are recorded in the accounts at their gross amounts (not net of discounts). 55% of the billings are collected within the discount period; 30% are collected by the end of the month; 9% are collected by the end of the second month; and 6% turn out to be uncollectible.

PURCHASES:

60% of all purchases of merchandise and the selling, general, and administrative expenses are paid in the month purchased and the remainder in the following month. The number of units in each month's ending inventory is equal to 125% of the next month's units of sales. The cost of each unit of inventory is \$30. Selling, general, and administrative expenses, of which \$3,000 is depreciation, are equal to 15% of the current month's sales.

Actual and projected sales are as shown below:

	Dollars	Units	Units Purch	Cost/unit	Budgeted Purchases
March	\$472,000	11,800			
April	\$484,000	12,100			
May	\$476,000	11,900	11,275	\$30	\$338,250
June	\$456,000	11,400	12,150	\$30	\$364,500
July	\$480,000	12,000			
August	\$480,000	12,200			

68. What are the budgeted merchandise purchases (in dollars) for May?

A. \$338,250

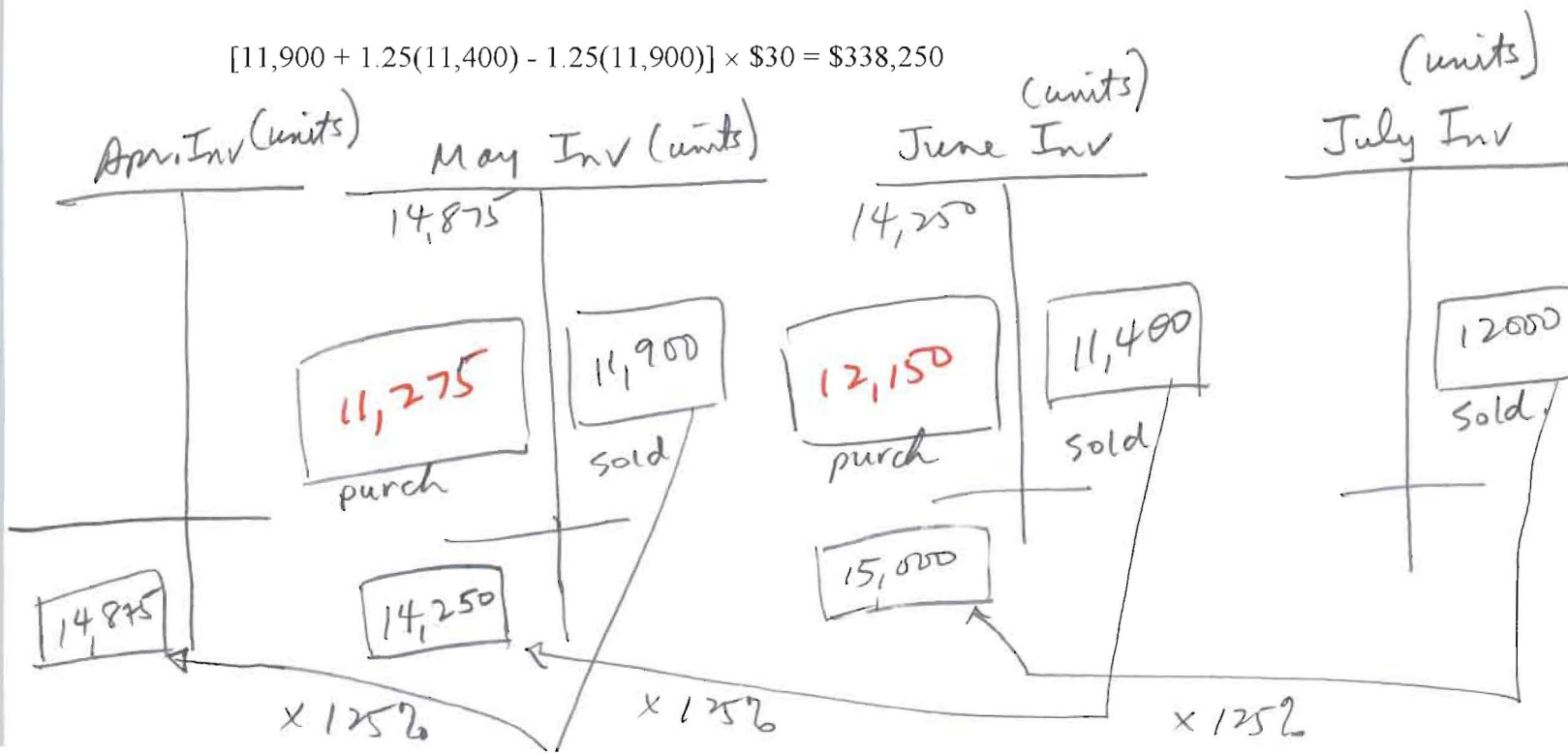
\$355,500

\$357,000

\$375,750

for June?
(next page).

$$[11,900 + 1.25(11,400) - 1.25(11,900)] \times \$30 = \$338,250$$



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July	\$480,000	12,000
August	\$480,000	12,200

69. What are the budgeted merchandise purchases (in dollars) for June?

\$319,500

\$342,000

C. \$364,500

\$375,000

$$[(11,400 + 1.25(12,000) - 1.25(11,400))] \times \$30 = \$364,500$$

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August	\$480,000	12,200

70. What are the budgeted cash disbursements during the month of June?

\$407,520

B. \$419,400

\$421,950

\$434,280

$$[.60(\$364,500)] + [.40(\$338,250)] + [.15(456,000) - 3,000] = \$419,400$$

	<u>Purchases</u>	<u>June Disbursements</u>
May (#68)	338,250 x 40% =	\$135,300
June (#69)	364,500 x 60% =	\$218,700
	<u>S, G, + A</u>	
June	456,000 sales x 15% =	68,400
	Noncash Deprec	(3,000)
		<u>(#70)</u>
		<u>June Budget Cash Disbursements = \$ 419,400</u>

Lynndorf Corporation is a manufacturer of tables sold to schools, restaurants, hotels, and other institutions. The table tops are manufactured by Lynndorf, but the table legs are purchased from an outside supplier. The Assembly Department takes a manufactured table top and attaches the four purchased table legs. It takes 20 minutes of labor to assemble a table. The company follows a policy of producing enough tables to insure that 40% of next month's sales are in the finished goods inventory. Lynndorf also purchases sufficient raw materials (legs) to insure that raw materials (legs) inventory is 60% of the following month's scheduled production needs. Lynndorf's sales budget in units for the next quarter is as follows: (CMA adapted)

July	2,300
August	2,500
September	2,100

Lynndorf's ending inventories in units for June 30 are

Finished goods	1,900
Raw materials (legs)	4,000

81. The number of tables to be produced during August is

- A. 1,400 tables.
- B. 2,340 tables.
- C. 1,440 tables.
- D. 1,900 tables.

$$2,500 + (.40 \times 2,100) - (.40 \times 2,500) = 2,340$$

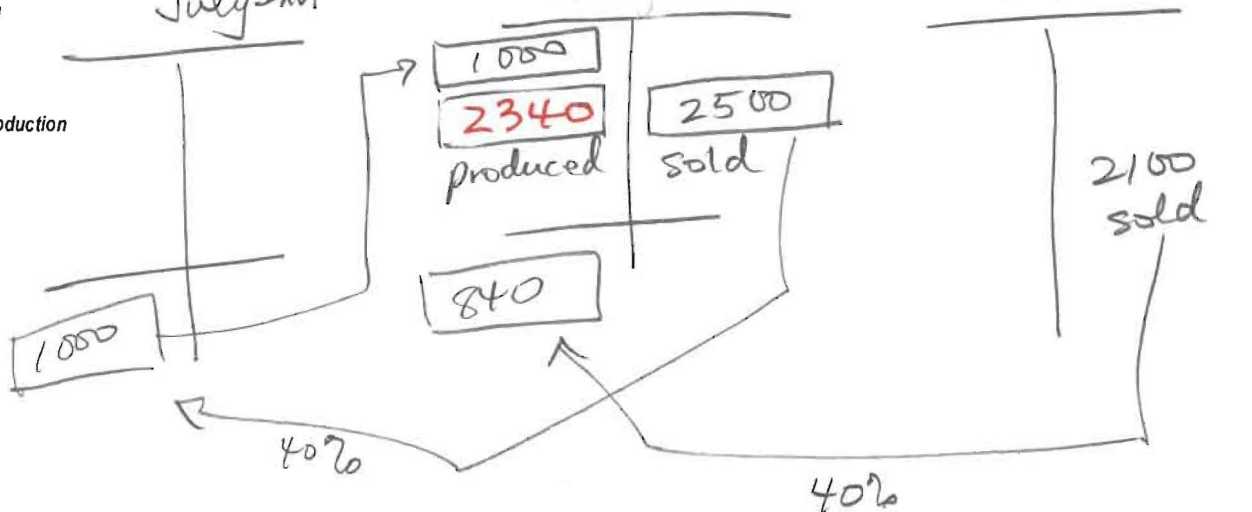
(tables)

July Inv.

August Inv. (tables).

Sept Inv (tables)

AACSB: Analytic
AICPA: FN-Decision Making
Bloom's: Analysis
Difficulty: Medium
Learning Objective: 4
Topic Area: Forecasting Production



Lynndorf Corporation is a manufacturer of tables sold to schools, restaurants, hotels, and other institutions. The table tops are manufactured by Lynndorf, but the table legs are purchased from an outside supplier. The Assembly Department takes a manufactured table top and attaches the four purchased table legs. It takes 20 minutes of labor to assemble a table. The company follows a policy of producing enough tables to insure that 40% of next month's sales are in the finished goods inventory. Lynndorf also purchases sufficient raw materials (legs) to insure that raw materials (legs) inventory is 60% of the following month's scheduled production needs. Lynndorf's sales budget in units for the next quarter is as follows: (CMA adapted)

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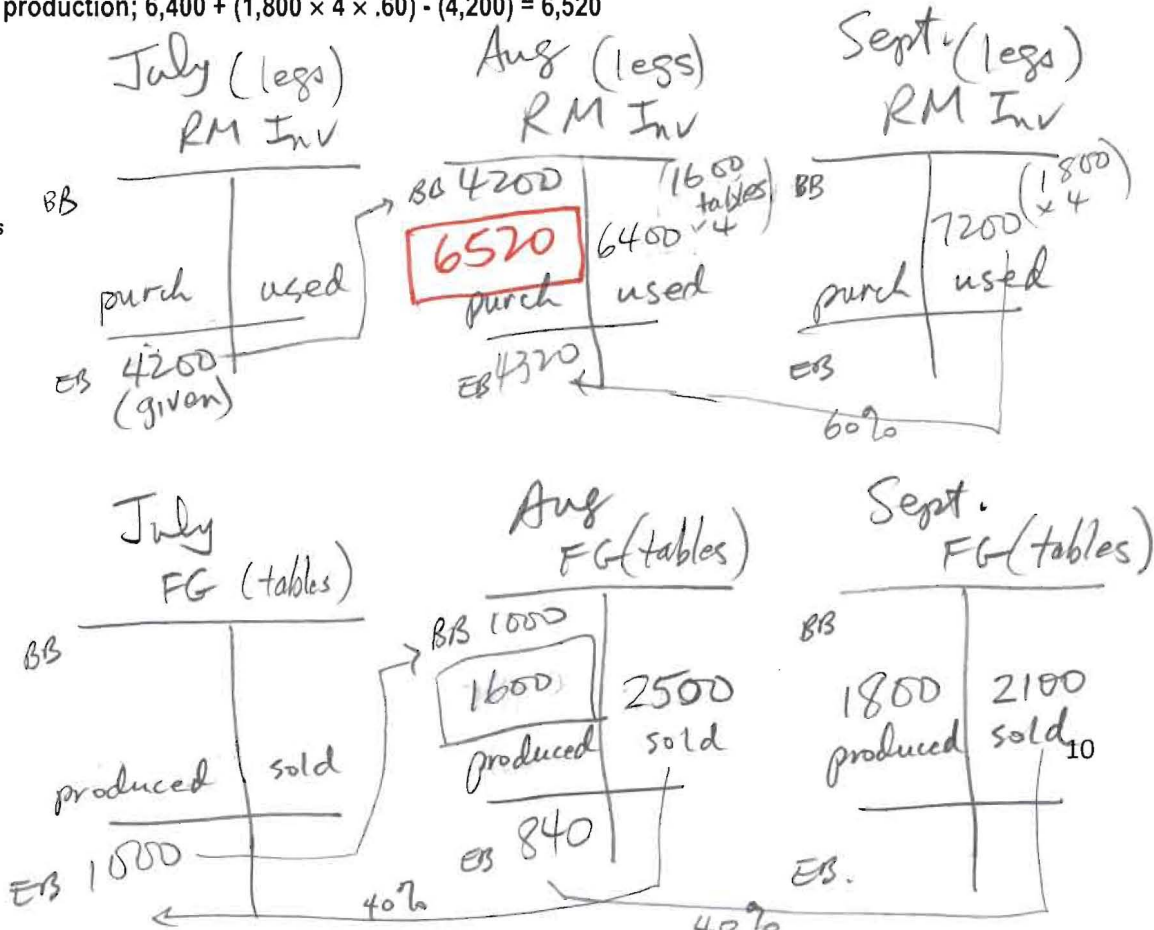
82. Disregarding your response to the previous question, assume the required production for August and September is 1,600 and 1,800 units, respectively, and the July 31 raw materials (legs) inventory is 4,200 units. The number of table legs to be purchased in August is

- A. 6,520 legs.
 B. 9,400 legs.
 C. 6,280 legs.
 D. 6,400 legs.

$$\frac{1 \text{ table}}{\text{FG}} = \frac{4 \text{ legs}}{\text{RM}}$$

$$1,600 \times 4 = 6,400 \text{ legs need for production; } 6,400 + (1,800 \times 4 \times .60) - (4,200) = 6,520$$

AACSB: Analytic
 AICPA: FN-Decision Making
 Bloom's: Analysis
 Difficulty: Medium
 Learning Objective: 4
 Topic Area: Forecasting Production Needs



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Finished goods	1,900
Raw materials (legs)	4,000

83. Assume that Lynndorf Corporation will produce 1,800 units in the month of September. How many employees will be required for the Assembly Department? (Fractional employees are acceptable since employees can be hired on a part-time basis. Assume a 40-hour week and a 4-week month.)

- A. 15 employees.
- B. 3.75 employees.
- C. 600 employees.
- D. 1.50 employees.

$$1,800 \times 20/60 = 600 \text{ hours needed; } 600/(40 \times 4) = 3.75$$

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AICPA: FN-Decision Making
Bloom's: Analysis
Difficulty: Medium
Learning Objective: 4
Topic Area: Forecasting Production Needs

1/3 hrs.

in sept.

Sept

1800 tables produced

x 1/3 hrs.

600 hrs needed

÷ 160 hrs. per employee

3.75 employees

160 hrs/mo.