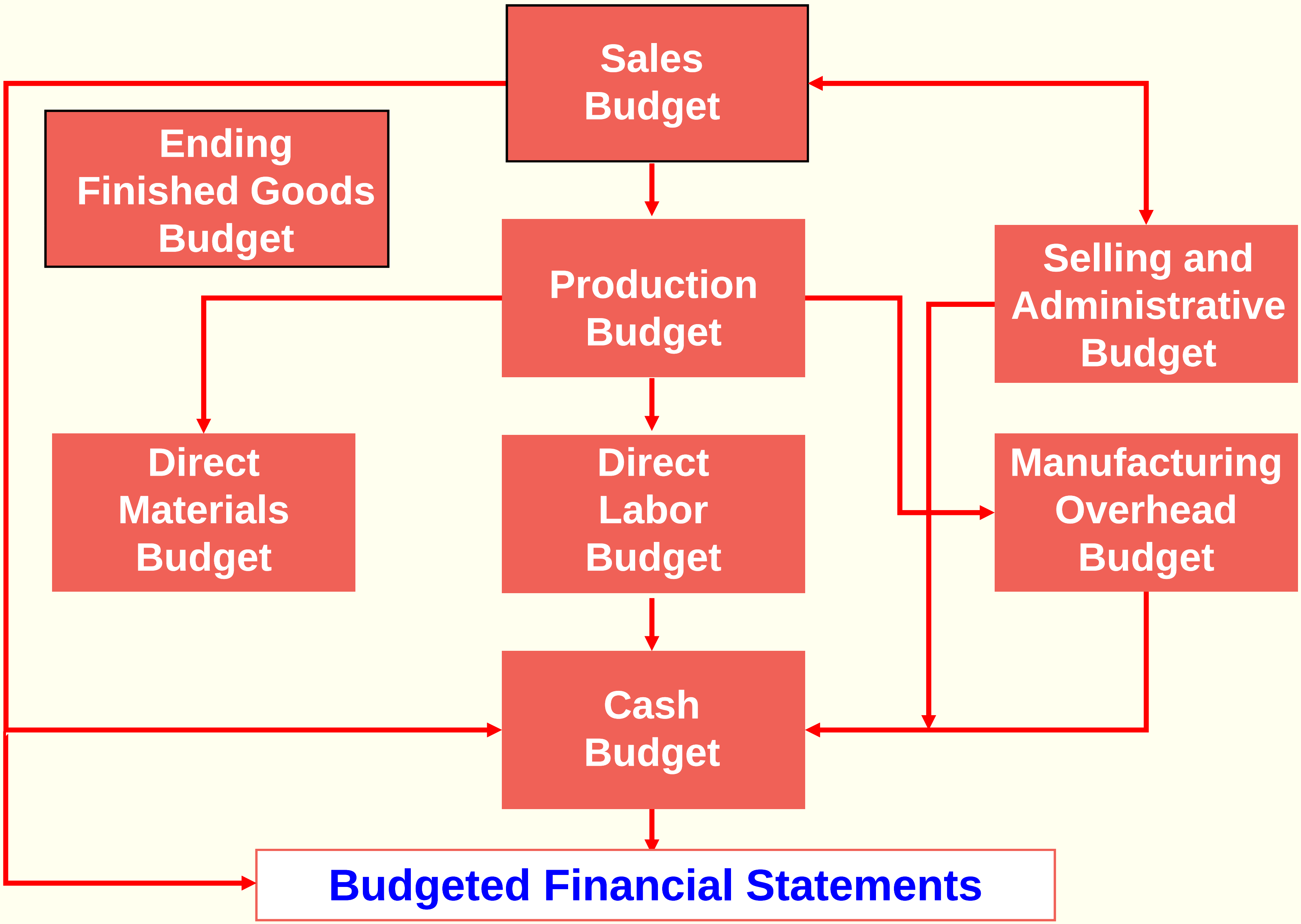
The Master Budget: An Overview



Budgeting: Practice Quiz 13 MY COPY

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

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

LO3

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

current market = 5,000,000 hammers
× 1.05 [5% increase)

5,250,000 hammers. [new market size]
× 24%

1,260,000 hammers [SHC's share of new market]
× $4.30 [new price

$5,418,000 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% increase

100% - 20% = 80% decline

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

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Bloom's: ~~Analysis~~
Difficulty: Hard
Learning ~~Objective: 3~~
Topic Area: Sales Forecasting

LO3

$$\begin{array}{ll} & 120{,}000 \\ \times & (100\% - 20\%) \text{ decline} \\ \hline & 96{,}000 \\ \times & \$120 \text{ avg. commission / trade} \\ \times & (100\% + 10\%) \text{ increase} \\ \hline & \$12{,}672{,}000 \text{ Estimated commission's revenues.} \end{array}$$

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

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

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Bloom's: Analysis
Difficulty: Hard
Learning ~~Objective: 3~~
Topic Area: Sales Forecasting

LO3

	Principal	Interest Rate	Next year
consumer loans	$35 M	× 12% = 4.2M	$40M × 10% = 4.0M
home equity loans	$30 M	× 8% = 2.4M	$32M × 6.5% = 2.08M
corporate securities	$5 M	× 6% = 0.3M	[$5M × 80%] × 9% = .36M
	$6.90M		6.44M

Δ = $460,000 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:

out of 6

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

3/6 DM = 153,000 × 1.20 = 183,600
2/6 DL = 102,000 × 1.15 = 117,300
1/6 MOH = 51,000 × 1.10 = 56,100
$357,000

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 × 1.10 = $56,100; Labor: $102,000 × 1.15 = $117,300; Material: $153,000 × 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 × .10) + ($42,000 × .90 × .75) + ($40,000 × .90 × .17) + ($34,000 × .90 × .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

LO5

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

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

3,800
28,350
6,120
1,836
40,106 cash collected in August.

1.015

85% credit sales

60. Assume the Task Company charges 1 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

$42,000 × .93 = $39,060; $40,000 × .93 = $37,200; $34,000 × .93 = $31,620; $30,000 × .93 = $27,900; ($39,060 × .15) + ($37,200 × .85 × .80) + ($31,620 × .85 × .16 × 1.015) + ($27,900 × .85 × .03 × 1.015) = $36,242

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Difficulty: Hard
Learning Objective: 5
Topic Area: Using Cash Flow Budgets to Estimate Cash Needs

LO5

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

Cash collected

93% x	15% x 42,000	cash
93% x	80% x 40,000 x 85%	June
1.015 x 93% x	16% x 34,000 x 85%	May
1.015 x 93% x	3% x 30,000 x 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

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Learning Objective: 5
Topic Area: Using Cash Flow Budgets to Estimate Cash Needs

LO5

100%	Sales	$975,000
55%	- CGS	(975,000 x 55%) = 536,250
45%	GP	(975,000 x 45%) = 438,750
	- S+A	$145,000 → Expenditures $141,000; noncash deprec $4,000
	NI	

+ FG Inv. -		+ Accts Receivable -		- Accts Payable +	
0		$37,500		27,500	
553,250 purchases	536,250 CGS				
17,000					

BB increased by 17,000

27,500 (cash paid on purchases)
+ 553,250 purchases
580,750

$721,750 disbursements

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? for June? (next page).

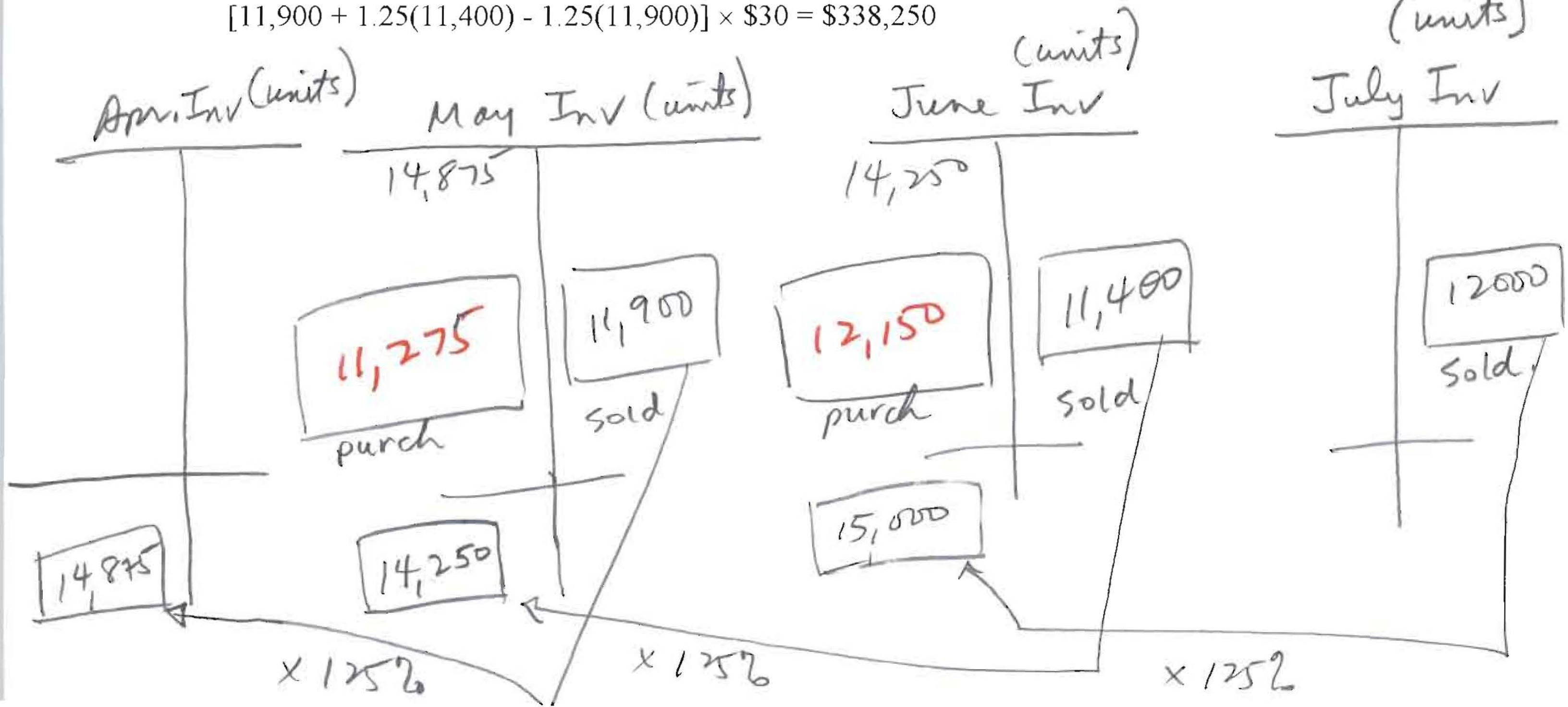
A. $338,250

$355,500

$357,000

$375,750

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



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June	$456,000	11,400
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)] × $30 = $364,500

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~~PUR~~CHASES:

40%

60% of all purchases of merchan~~dise 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.

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April	$484,000	12,100
May	$476,000	11,900
June	$456,000	11,400
July	$480,000	12,000
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

	Purchases	June Disbursements
May	#68 338,250 x 40% =	$135,300
June	#69 364,500 x 60% =	$218,700
	S, G, + A	
June	456,000 x 15% = sales	68,400
	Noncash Deprec	(3000)

June Budget Cash Disbursements : $ 419,400 #70

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

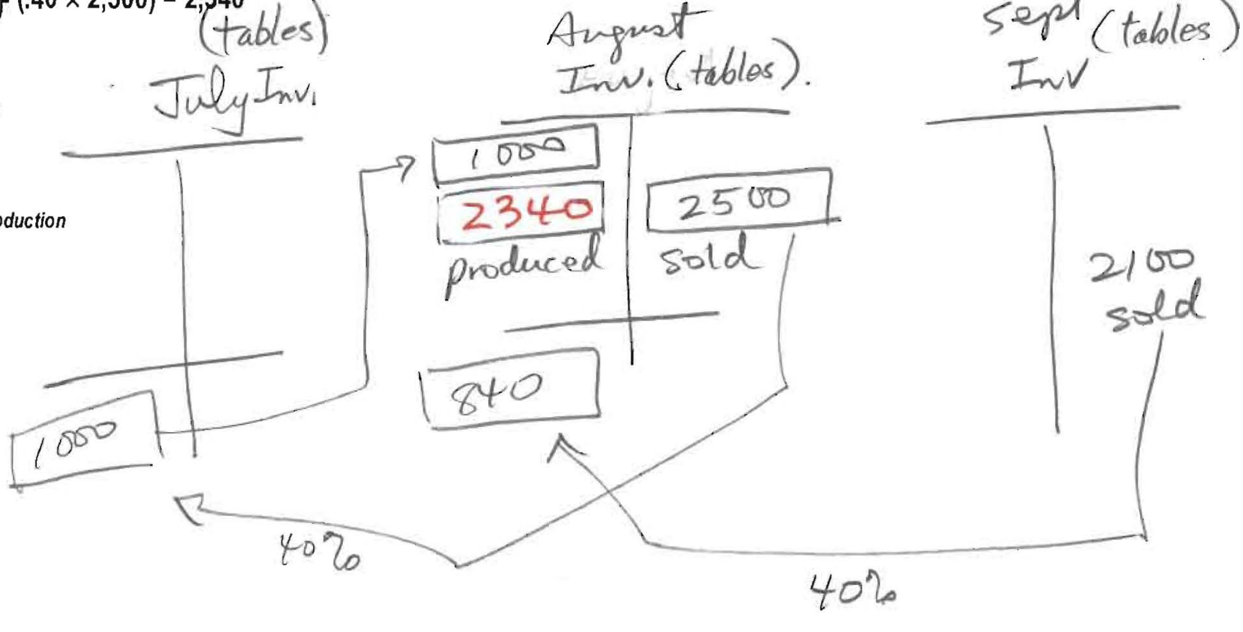
A. 1,400 tables.

B. 2,340 tables.

C. 1,440 tables.

D. 1,900 tables. 40% of next month's sales

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



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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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

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.

$\underbrace{1\text{ table}}_{FG} = \underbrace{4\text{ legs}}_{RM}$.

1,600 × 4 = 6,400 legs need for production; 6,400 + (1,800 × 4 × .60) - (4,200) = 6,520

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

July (legs) RM Inv
BB
purch | used
EB 4200 (given)

Aug (legs) RM Inv
BB 4200
$\boxed{6520}$ purch | 6400 (1600 tables × 4) used
EB 4320

Sept. (legs) RM Inv
BB
purch | 7200 (1800 × 4) used
EB
60%

July FG (tables)
BB
produced | sold
EB 1000

Aug FG (tables)
BB 1000
$\boxed{1600}$ produced | 2500 sold
EB 840

Sept. FG (tables)
BB
1800 produced | 2100 sold
EB.

40%
40%

1/3 hrs.

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

in sept.

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.)

160 hrs/mo.

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

1,800 × 20/60 = 600 hours needed; 600/(40 × 4) = 3.75

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Difficulty: Medium
Learning Objective: 4
Topic Area: Forecasting Production Needs

Sept

1800 tables produced
× 1/3 hrs.

600 hrs needed
÷ 160 hrs. per employee

3.75 employees