



UNIVERSITÀ
DEGLI STUDI
DI BERGAMO

Dipartimento
di Scienze Aziendali

Budgeting

Excercise 1

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Morganton Company makes one product and it provided the following information to help prepare the master budget:

- a. The budgeted selling price per unit is \$70. Budgeted unit sales for June, July, August, and September are 8,400, 10,000, 12,000, and 13,000 units, respectively. All sales are on credit.
- b. Forty percent of credit sales are collected in the month of the sale and 60% in the following month.
- c. The ending finished goods inventory equals 20% of the following month's unit sales.
- d. The ending raw materials inventory equals 10% of the following month's raw materials production needs. Each unit of finished goods requires 5 pounds of raw materials. The raw materials cost \$2.00 per pound.
- e. Thirty percent of raw materials purchases are paid for in the month of purchase and 70% in the following month.
- f. The direct labor wage rate is \$15 per hour. Each unit of finished goods requires two direct labor-hours.
- g. The variable selling and administrative expense per unit sold is \$1.80. The fixed selling and administrative expense per month is \$60,000.



Requirements

1. What are the budgeted sales for July?
2. What are the expected cash collections for July?
3. What is the accounts receivable balance at the end of July?
4. According to the production budget, how many units should be produced in July?
5. If 61,000 pounds of raw materials are needed to meet production in August, how many pounds of raw materials should be purchased in July?
6. What is the estimated cost of raw materials purchases for July?
7. In July what are the total estimated cash disbursements for raw materials purchases? Assume the cost of raw material purchases in June is \$88,880.
8. What is the estimated accounts payable balance at the end of July?
9. What is the estimated raw materials inventory balance at the end of July?
10. What is the total estimated direct labor cost for July?

Accounts receivable = amount of goods sold which have not been paid (no cash-in)



Requirements

11. If we assume that there is no fixed manufacturing overhead and the variable manufacturing overhead is \$10 per direct labor-hour, what is the estimated unit product cost?
12. What is the estimated finished goods inventory balance at the end of July?
13. What is the estimated cost of goods sold and gross margin for July?
14. What is the estimated total selling and administrative expense for July?

Cost of goods sold = total product
cost of goods sold (only product not
selling and admin)

Gross margin = revenues - cost of
goods sold



1. The budgeted sales for July are computed as follows:

Unit sales (a).....	10,000
Selling price per unit (b).....	\$70
Total sales (a) × (b).....	\$700,000

2. The expected cash collections for July are computed as follows:

	<i>July</i>
June sales:	
\$588,000 × 60%	\$352,800
July sales:	
\$700,000 × 40%	<u>280,000</u>
Total cash collections	<u>\$632,800</u>



3. The accounts receivable balance at the end of July is:

July sales (a)	\$700,000
Percent uncollected (b)	60%
Accounts receivable (a) × (b)	\$420,000

4. The required production for July is computed as follows:

	<i>July</i>
Budgeted sales in units	10,000
Add desired ending inventory*	<u>2,400</u>
Total needs	12,400
Less beginning inventory**	<u>2,000</u>
Required production	<u>10,400</u>

**August sales of 12,000 units × 20% = 2,400 units*

***July sales of 10,000 units × 20% = 2,000 units.*



5. The raw material purchases for July are computed as follows:

	<i>July</i>
Required production in units of finished goods.....	10,400
Units of raw materials needed per unit of finished goods	<u>5</u>
Units of raw materials needed to meet production	52,000
Add desired units of ending raw materials inventory*	<u>6,100</u>
Total units of raw materials needed.....	58,100
Less units of beginning raw materials inventory**.....	<u>5,200</u>
Units of raw materials to be purchased.....	<u><u>52,900</u></u>

**61,000 pounds × 10% = 6,100 pounds.*

***52,000 pounds × 10% = 5,200 pounds.*



6. The cost of raw material purchases for July is computed as follows:

Units of raw materials to be purchased (a)	52,900
Unit cost of raw materials (b)	\$2.00
Cost of raw materials to be purchased (a) × (b)	\$105,800

7. The estimated cash disbursements for materials purchases in July is computed as follows:

	<i>July</i>
June purchases:	
\$88,880 × 70%	\$62,216
July purchases:	
\$105,800 × 30%	<u>31,740</u>
Total cash disbursements	<u>\$93,956</u>



8. The accounts payable balance at the end of July is:

July purchases (a)	\$105,800
Percent unpaid (b)	70%
Accounts payable (a) × (b)	\$74,060

9. The estimated raw materials inventory balance at the end of July is computed as follows:

Ending raw materials inventory (pounds) (a)	6,100
Cost per pound (b)	\$2.00
Raw material inventory balance (a) × (b)	\$12,200



10. The estimated direct labor cost for July is computed as follows:

	<i>July</i>
Required production in units	10,400
Direct labor hours per unit	<u>× 2.0</u>
Total direct labor-hours needed (a) ..	20,800
Direct labor cost per hour (b)	\$15
Total direct labor cost (a) × (b)	<u>\$312,000</u>

11. The estimated unit product cost is computed as follows:

	<i>Quantity</i>	<i>Cost</i>	<i>Total</i>
Direct materials	5 pounds	\$2 per pound	\$10.00
Direct labor	2 hours	\$15 per hour	30.00
Manufacturing overhead	2 hours	\$10 per hour	<u>20.00</u>
Unit product cost			<u>\$60.00</u>



12. The estimated finished goods inventory balance at the end of July is computed as follows:

Ending finished goods inventory in units (a)	2,400
Unit product cost (b).....	\$60.00
Ending finished goods inventory (a) × (b)	\$144,000

13. The estimated cost of goods sold for July is computed as follows:

Unit sales (a).....	10,000
Unit product cost (b).....	\$60.00
Estimated cost of goods sold (a) × (b)	\$600,000

The estimated gross margin for July is computed as follows:

Total sales (a)	\$700,000
Cost of goods sold (b).....	<u>600,000</u>
Estimated gross margin (a) – (b)	<u>\$100,000</u>



14. The estimated selling and administrative expense for July is computed as follows:

	<i>July</i>
Budgeted unit sales	10,000
Variable selling and administrative	
expense per unit	<u>× \$1.80</u>
Total variable expense	\$18,000
Fixed selling and administrative expenses...	<u>60,000</u>
Total selling and administrative expenses ...	<u>\$78,000</u>

