

Problem 9-15 (45 minutes)

1. Production budget:

	<i>July</i>	<i>August</i>	<i>Septem-ber</i>	<i>October</i>
Budgeted sales (units)	35,000	40,000	50,000	30,000
Add desired ending inventory.	<u>11,000</u>	<u>13,000</u>	<u>9,000</u>	<u>7,000</u>
Total needs	46,000	53,000	59,000	37,000
Less beginning inventory	<u>10,000</u>	<u>11,000</u>	<u>13,000</u>	<u>9,000</u>
Required production.....	<u>36,000</u>	<u>42,000</u>	<u>46,000</u>	<u>28,000</u>

2. During July and August the company is building inventories in anticipation of peak sales in September. Therefore, production exceeds sales during these months. In September and October inventories are being reduced in anticipation of a decrease in sales during the last months of the year. Therefore, production is less than sales during these months to cut back on inventory levels.

3. Direct materials budget:

	<i>July</i>	<i>August</i>	<i>Septem-ber</i>	<i>Third Quarter</i>
Required production (units) ...	36,000	42,000	46,000	124,000
Material H300 needed per unit	<u>× 3 cc</u>	<u>× 3 cc</u>	<u>× 3 cc</u>	<u>× 3 cc</u>
Production needs (cc)	108,000	126,000	138,000	372,000
Add desired ending inventory (cc)	<u>63,000</u>	<u>69,000</u>	<u>42,000</u>	* <u>42,000</u>
Total material H300 needs.....	171,000	195,000	180,000	414,000
Less beginning inventory (cc)	<u>54,000</u>	<u>63,000</u>	<u>69,000</u>	<u>54,000</u>
Material H300 purchases (cc).	<u>117,000</u>	<u>132,000</u>	<u>111,000</u>	<u>360,000</u>

* 28,000 units (October production) × 3 cc per unit = 84,000 cc;
 84,000 cc × 1/2 = 42,000 cc.

As shown in part (1), production is greatest in September; however, as shown in the raw material purchases budget, purchases of materials are greatest a month earlier—in August. The reason for the large purchases of materials in August is that the materials must be on hand to support the heavy production scheduled for September.