**I.**

Sowers Company specializes in making two high-quality coffee tables. The Jayhawk is a 4΄ × 5΄ mahogany table, and the Okie is a 3΄ × 4΄ cherry table. The budgeted material and labor quantities for each product in 2009 are as follows:

**Jayhawk Tables** **Okie Tables**

Direct Materials

Mahogany top 20 square feet -----

Cherry top ----- 12 square feet

Mahogany legs 4 legs -----

Cherry legs ----- 4 legs

Direct manufacturing labor 5 hours 4 hours

Inventory data pertaining to direct materials for September 2009 are:

Actual beginning Direct Materials Inventory, September 1:

**Jayhawk Tables** **Okie Tables**

Mahogany top 320 square feet -----

Cherry top ----- 150 square feet

Mahogany legs 100 legs -----

Cherry legs ----- 40 legs

Target ending Direct Materials Inventory, September 30:

**Jayhawk Tables** **Okie Tables**

Mahogany top 192 square feet -----

Cherry top ----- 200 square feet

Mahogany legs 80 legs -----

Cherry legs ----- 44 legs

Prices for direct materials and direct labor during August and September are:

**August** **September**

Mahogany top (per square foot) $21 $22

Cherry top (per square foot) 18 20

Mahogany legs (per leg) 14 15

Cherry legs (per leg) 12 13

Manufacturing labor rate per hour 30 30

Variable manufacturing overhead is allocated to each table on the basis of direct labor hours. The budgeted variable manufacturing overhead rate for 2009 is $35 per direct labor hour.

Data relating to finished goods inventory for September are:

**Jayhawk Tables** **Okie Tables**

Beginning inventory units 20 tables 5 tables

Beginning inventory cost $16,020\* $2,620\*

Target ending inventory 25 tables 12 tables

\*Variable manufacturing cost

Budgeted sales for September are 780 Jayhawk tables and 390 Okie tables. The budgeted selling prices are $1,600 for a Jayhawk table and $1,100 for an Okie table. Also,

a. Work-in-process inventories are negligible.

b. Sowers uses the FIFO method of inventory valuation.

c. *Sowers prepares monthly budgets using what is known as “variable costing*.” That is, the company does not allocate fixed manufacturing overhead to its tables for the purpose of monthly budgeting. Instead, it assigns only direct materials, direct labor, and variable manufacturing overhead to the tables. Sowers’s accountants subtract the company’s budgeted variable cost of goods sold from budgeted revenues to derive its static budget contribution margin for the month.

**REQUIRED:**

A. Using Excel, prepare the following budgets for September 2009. Refer to the budgets and schedules of HDFRI pp. 189-194.

1. Revenues budget

2. Production budget in units

3. Direct materials usage budget in physical units and dollars

4. Direct materials purchases budget in physical units and dollars

5. Direct manufacturing labor budget in labor hours and dollars

6. Variable manufacturing overhead cost budget

7. Ending finished goods inventories budget, for both unit costs and total costs

8. Cost of goods sold budget

9. Budgeted income statement, through the contribution margin

B. Refer to Requirement A, with budgeted sales of 780 Jayhawk tables and 390 Okie tables. On September 1, Sowers’s vice-president for sales expected the company to capture 5% of the predicted market sales of 23,400 high-quality coffee tables during the month. Each salesperson sells both Jayhawk tables and Okie tables. The sales force was asked to push the Jayhawk tables and use the Okies as their “fall-back position.” The actual market size in September was 22,000 tables. Sowers actually sold 792 Jayhawks and 528 Okies during the month. The company increased production of tables in response to the higher-than-expected demand.

Compute Sowers’s sales volume variance, sales mix variance, sales quantity variance, market size variance, and market share variance for September. Compute these variances at the level of the contribution margin only, not separately for revenues and variable costs. Use the variances, as needed, to evaluate the performance of the company’s sales function. **For this requirement, assume that all tables sold in September were produced at the September per-unit variable manufacturing costs.**