

**Problem 21-5A**

Flexible budget preparation; computation of materials, labor, and overhead variances; and overhead variance report

P1 P2 P3 C2

Kwikeze Company set the following standard costs for one unit of its product.

Direct materials (4.5 lbs. @ \$6 per lb.)	\$27.00
Direct labor (1.5 hrs. @ \$12 per hr.)	18.00
Overhead (1.5 hrs. @ \$16 per hr.)	24.00
<b>Total standard cost</b>	<b>\$69.00</b>

The predetermined overhead rate (\$16 per direct labor hour) is based on an expected volume of 75% of the factory's capacity of 20,000 units per month. Following are the company's budgeted overhead costs per month at the 75% level.

<b>Variable overhead costs</b>	
Indirect materials	\$22,500
Indirect labor	90,000
Power	22,500
Repairs and maintenance	45,000
<b>Total variable overhead costs</b>	<b>\$180,000</b>
<b>Fixed overhead costs</b>	
Depreciation—building	24,000
Depreciation—machinery	72,000
Taxes and insurance	18,000
Supervision	66,000
<b>Total fixed overhead costs</b>	<b>180,000</b>
<b>Total overhead costs</b>	<b>\$360,000</b>

The company incurred the following actual costs when it operated at 75% of capacity in October.

Direct materials (69,000 lbs. @ \$6.10 per lb.)	\$ 420,900
Direct labor (22,800 hrs. @ \$12.30 per hr.)	280,440
<b>Overhead costs</b>	
Indirect materials	\$21,600
Indirect labor	82,260
Power	23,100
Repairs and maintenance	46,800
Depreciation—building	24,000
Depreciation—machinery	75,000
Taxes and insurance	16,500
Supervision	66,000
<b>Total costs</b>	<b>\$1,056,600</b>

**Required**

1. Examine the monthly overhead budget to (a) determine the costs per unit for each variable overhead item and its total per unit costs, and (b) identify the total fixed costs per month.
2. Prepare flexible overhead budgets (as in Exhibit 21.12) for October showing the amounts of each variable and fixed cost at the 65%, 75%, and 85% capacity levels.
3. Compute the direct materials cost variance, including its price and quantity variances.
4. Compute the direct labor cost variance, including its rate and efficiency variances.
5. Prepare a detailed overhead variance report (as in Exhibit 21.15) that shows the variances for individual items of overhead.

**Check** (2) Budgeted total overhead at 13,000 units, \$336,000.

(3) Materials variances:  
Price, \$6,900 U; Quantity, \$9,000 U