

Homework #4_Set #3: DM, DL and OH

This question combines all of the Direct Material, Direct Labor, Variable Overhead, and Fixed Overhead Variances into one big question.

A company's costing system has two direct-cost categories: direct materials and direct manufacturing labor. Variable manufacturing overhead is allocated to products on the basis of standard direct manufacturing labor-hours (DLH). At the beginning of the year the company adopted the following standards for its manufacturing costs:

	<u>Input</u>	<u>Cost per Output Unit</u>
Direct materials	5 lb. at \$4 per lb.	\$20
Direct labor	4 hrs. at \$16 per hr.	\$64
Variable manufacturing overhead	\$8 per DLH	\$32

Fixed manufacturing overhead per month is budgeted to be \$333,000. The company budgeted to make 8,000 output units per month.

The actual results for January were:

Direct material purchased	40,300 lb. at \$3.80 per lb.
Direct materials used	37,300 lb.
Direct labor	31,400 hours at \$16.25 per hour
Variable manufacturing overhead rate	\$9.00 per DLH
Fixed manufacturing overhead	\$367,400
Actual production	7,600 output units

Required:

For the month of January, compute the following variances, indicating whether each is favorable (F) or unfavorable (U):

- Direct materials price variance
- Direct materials efficiency variance
- Direct labor price variance
- Direct labor efficiency variance
- Variable manufacturing overhead rate variance
- Variable manufacturing overhead efficiency variance
- Fixed manufacturing overhead spending variance

Direct Materials

	Actual	As If	Flexible
Actual Quantity	40,300	40,300	
Actual Price	3.8	4	
Total	153140	161200	
DM Price Variance	8060	F	
Actual Quantity		37,300	38000
Actual Price		4	4
Total		149200	152000
DM Efficiency Variance		2800	F

Direct Labor

	Actual	As If	Flexible
Actual Quantity	31,400	31,400	30400
Actual Price	16.25	16	16
Total	510250	502400	486400
DL Price Variance	-7850	U	
DL Efficiency Variance		-16000	U

Variable Manufacturing Overhead				
	Actual	As If		Flexible
Actual Quantity	31,400	31,400		30400
Actual Rate	9	8		8
Total	282600	251200		243200
VMO Rate Variance		-31400	U	
VMO Efficiency Variance				-8000
				U
Fixed Manufacturing Overhead				
	Actual	As If		Flexible
Actual Costs	367400	N/A		
Budgeted Costs				333000
Spending Variance		34400	U	