

1.

value:
3.00 points

Huron Company produces a commercial cleaning compound known as Zoom. The direct materials and direct labor standards for one unit of Zoom are given below:

	Standard Quantity or Hours	Standard Price or Rate	Standard Cost
Direct materials	7.00 pounds	\$ 2.20 per pounds	\$15.40
Direct labor	0.45 hours	\$ 7.00 per hour	\$ 3.15

During the most recent month, the following activity was recorded:

- 19,500 pounds of material were purchased at a cost of \$2.10 per pound.
- All of the material purchased was used to produce 2,500 units of Zoom.
- 1,025 hours of direct labor time were recorded at a total labor cost of \$9,225.

Required:

1. Compute the materials price and quantity variances for the month. (Indicate the effect of each variance by selecting "F" for favorable, "U" for unfavorable, and "None" for no effect (i.e., zero variance).)

Direct materials price variance		
Direct materials quantity variance		

2. Compute the labor rate and efficiency variances for the month. (Indicate the effect of each variance by selecting "F" for favorable, "U" for unfavorable, and "None" for no effect (i.e., zero variance).)

Direct labor rate variance		
Direct labor efficiency variance		

References

eBook & Resources

2.

value:
3.00 points

Erie Company manufactures a small mp3 player called the Jogging Mate. The company uses standards to control its costs. The labor standards that have been set for one Jogging Mate mp3 player are as follows:

Standard Hours	Standard Rate per Hour	Standard Cost
27 minutes	\$5.80	\$2.61

During August, 9,340 hours of direct labor time were needed to make 19,600 units of the Jogging Mate. The direct labor cost totaled \$52,304 for the month.

Required:

1. According to the standards, what direct labor cost should have been incurred to make 19,600 units of the Jogging Mate? By how much does this differ from the cost that was incurred? **(Round Standard labor time per unit to 2 decimal places.)**

Number of units manufactured	
Standard labor time per unit	
Total standard hours of labor time allowed	
Standard direct labor rate per hour	
Total standard direct labor cost	
Actual direct labor cost	
Standard direct labor cost	
Total variance—unfavorable	\$ 0

2. Break down the difference in cost from (1) above into a labor rate variance and a labor efficiency variance. (Indicate the effect of each variance by selecting "F" for favorable, "U" for unfavorable, and "None" for no effect (i.e., zero variance). Do not round intermediate calculations.)

Labor rate variance		
Labor efficiency variance		

3. The budgeted variable manufacturing overhead rate is \$4.5 per direct labor-hour. During August, the company incurred \$46,700 in variable manufacturing overhead cost. Compute the variable overhead rate and efficiency variances for the month. (Indicate the effect of each variance by selecting "F" for favorable, "U" for unfavorable, and "None" for no effect (i.e., zero variance). Do not round intermediate calculations and round your final answers to nearest whole dollar.)

Variable overhead rate variance		
Variable overhead efficiency variance		

3.

value:
4.00 points

Becton Labs, Inc., produces various chemical compounds for industrial use. One compound, called Fludex, is prepared using an elaborate distilling process. The company has developed standard costs for one unit of Fludex, as follows:

	Standard Quantity	Standard Price or Rate	Standard Cost
Direct materials	2.10 ounces	\$24.00 per ounce	\$ 50.40
Direct labor	0.40 hours	\$14.00 per hour	5.60
Variable manufacturing overhead	0.40 hours	\$ 2.50 per hour	1.00
			\$ 57.00

During November, the following activity was recorded relative to production of Fludex:

- Materials purchased, 11,500 ounces at a cost of \$259,325.
- There was no beginning inventory of materials; however, at the end of the month, 2,700 ounces of material remained in ending inventory.
- The company employs 23 lab technicians to work on the production of Fludex. During November, they worked an average of 100 hours at an average rate of \$11.00 per hour.
- Variable manufacturing overhead is assigned to Fludex on the basis of direct labor-hours. Variable manufacturing overhead costs during November totaled \$2,300.
- During November, 4,100 good units of Fludex were produced .

Required:

1. For direct materials:

- Compute the price and quantity variances. (Input all amounts as positive values. Indicate the

b. In the past, the 23 technicians employed in the production of Fludex consisted of 4 senior technicians and 19 assistants. During November, the company experimented with fewer senior technicians and more assistants in order to save costs. Would you recommend that the new labor mix be continued?

- ☐ Yes
- ☐ No

3. Compute the variable overhead rate and efficiency variances. (Input all amounts as positive values. Indicate the effect of each variance by selecting "F" for favorable, "U" for unfavorable, and "None" for no effect (i.e., zero variance).)

Variable overhead rate variance		
Variable overhead efficiency variance		

- c. The company employs 23 lab technicians to work on the production of Fludex. During November, they worked an average of 100 hours at an average rate of \$11.00 per hour.
- d. Variable manufacturing overhead is assigned to Fludex on the basis of direct labor-hours. Variable manufacturing overhead costs during November totaled \$2,300.
- e. During November, 4,100 good units of Fludex were produced .

Required:

1. For direct materials:

- a. Compute the price and quantity variances. **(Input all amounts as positive values. Indicate the effect of each variance by selecting "F" for favorable, "U" for unfavorable, and "None" for no effect (i.e, zero variance).)**

Materials price variance		
Materials quantity variance		

- b. The materials were purchased from a new supplier who is anxious to enter into a long-term purchase contract. Would you recommend that the company sign the contract?

- ☐ Yes
- ☐ No

b. The materials were purchased from a new supplier who is anxious to enter into a long-term purchase contract. Would you recommend that the company sign the contract?

- ☐ Yes
☐ No

2. For direct labor:

a. Compute the rate and efficiency variances. (Input all amounts as positive values. Indicate the effect of each variance by selecting "F" for favorable, "U" for unfavorable, and "None" for no effect (i.e, zero variance).)

Labor rate variance		
Labor efficiency variance		