

### Exercise 10-3 (20 minutes)

1. Number of meals prepared .....	4,000
Standard direct labor-hours per meal.....	$\times 0.25$
Total direct labor-hours allowed .....	1,000
Standard direct labor cost per hour .....	$\times \$9.75$
Total standard direct labor cost.....	<u>\$9,750</u>
Actual cost incurred .....	\$9,600
Total standard direct labor cost (above)....	<u>9,750</u>
Total direct labor variance .....	<u>\$ 150</u> Favorable

Actual Hours of Input, at the Actual Rate (AH $\times$ AR)	Actual Hours of Input, at the Standard Rate (AH $\times$ SR)	Standard Hours Allowed for Output, at the Standard Rate (SH $\times$ SR)
<u>960 hours <math>\times</math> \$10.00 per hour = \$9,600</u>	<u>960 hours <math>\times</math> \$9.75 per hour = \$9,360</u>	<u>1,000 hours <math>\times</math> \$9.75 per hour = \$9,750</u>
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <math>\uparrow</math> Rate Variance, \$240 U         </div> <div style="text-align: center;"> <math>\uparrow</math> Efficiency Variance, \$390 F         </div> </div> <div style="border: 1px solid black; padding: 5px; text-align: center; margin-top: 5px;">           Total Variance, \$150 F         </div>		

Alternatively, the variances can be computed using the formulas:

$$\begin{aligned}
 \text{Labor rate variance} &= \text{AH}(\text{AR} - \text{SR}) \\
 &= 960 \text{ hours } (\$10.00 \text{ per hour} - \$9.75 \text{ per hour}) \\
 &= \$240 \text{ U}
 \end{aligned}$$

$$\begin{aligned}
 \text{Labor efficiency variance} &= \text{SR}(\text{AH} - \text{SH}) \\
 &= \$9.75 \text{ per hour } (960 \text{ hours} - 1,000 \text{ hours}) \\
 &= \$390 \text{ F}
 \end{aligned}$$