What is Overhead Variance Analysis?

Worksheet

Total overhead variance equals Actual Overhead minus Applied Overhead, where Applied Overhead is Standard Overhead Rate Standard Hours Allowed. A positive result is unfavorable (actual overhead exceeded what was applied); a negative result is favorable.

$$@text{VOV} = @text{FOV} + @text{VOH}$$

Questions

1. Actual overhead is $60,000, standard rate is $15/hr, standard hours allowed is 4,000. What is the total overhead variance?

A) $0
B) $60,000 Unfavorable
C) $0 Unfavorable
D) $4,000 Unfavorable

2. Which two variances make up total overhead variance?

A) Price and quantity
B) Rate and efficiency
C) Spending and volume
D) Sales and cost

3. Applied overhead is calculated as

A) Actual overhead actual hours
B) Standard overhead rate standard hours allowed
C) Actual overhead standard rate
D) Budgeted overhead actual hours

4. An unfavorable volume variance suggests

A) Overhead spending was too low
B) Production used less capacity than planned
C) Labor was paid too much
D) Materials were too cheap

5. Actual overhead incurred was $52,000. Standard overhead rate is $10/hr, and standard hours allowed for actual output is 5,000. Find the total overhead variance.

6. Actual overhead was $47,000. Standard rate is $8/hr, standard hours allowed is 6,000.

7. Actual overhead was $61,000, standard rate $12/hr, standard hours allowed 5,000.

8. Define: What is the total overhead variance formula?

9. Define: What are the two components of total overhead variance?

10. Define: What does the spending variance measure?

Answer Key

1. A) $0 - Applied = $154,000 = $60,000; $60,000 $60,000 = $0, no variance.

2. C) Spending and volume - Total overhead variance splits into a spending (budget) variance and a volume (capacity) variance.

3. B) Standard overhead rate standard hours allowed - Applied overhead assigns cost to production using the standard rate and standard hours allowed.

4. B) Production used less capacity than planned - Volume variance is unfavorable when actual output (standard hours allowed) falls short of budgeted capacity.

5. Applied Overhead = SOHR SH = $10 5,000 = $50,000 Total Variance = AOH Applied = $52,000 $50,000 = $2,000 Since AOH > Applied, the variance is $2,000 Unfavorable

6. Applied Overhead = $8 6,000 = $48,000 Total Variance = $47,000 $48,000 = $1,000 Since AOH < Applied, the variance is $1,000 Favorable

7. Applied Overhead = $12 5,000 = $60,000 Total Variance = $61,000 $60,000 = $1,000 Since AOH > Applied, the variance is $1,000 Unfavorable

8. Total OH Variance = Actual Overhead Applied Overhead, where Applied Overhead = Standard Overhead Rate Standard Hours Allowed.

9. The spending (budget) variance and the volume (capacity) variance.

10. The difference between actual overhead and the budgeted overhead at the standard hours allowed - a cost-control measure.