

Practical Problems

1. Material Variance Calculation

A furniture company uses sunmica tops for tables. It provides the following data:

- **Standard quantity per table:** 4 sq. ft
- **Standard price per sq. ft:** Rs. 5
- **Actual production:** 1000 tables
- **Actual sunmica used:** 4,300 sq. ft
- **Actual price per sq. ft:** Rs. 5.50

Calculate:

- a) **Material Cost Variance (MCV)**
 - b) **Material Usage Variance (MUV)**
 - c) **Material Price Variance (MPV)**
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2. Material Variance Calculation

From the following information, calculate:

- **Material Cost Variance (MCV)**
- **Material Price Variance (MPV)**
- **Material Usage Variance (MUV)**

Standard Data:

- **Standard output:** 100 units
- **Standard material per unit:** 3 lbs
- **Standard price per lb:** Rs. 2

Actual Data:

- **Actual output:** 80 units
 - **Actual materials used:** 250 lbs
 - **Actual price per lb:** Rs. 5.50
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3. Material Variance Calculation with Opening & Closing Stock Given

the following data, calculate:

- **Material Cost Variance (MCV)**
- **Material Price Variance (MPV)**
- **Material Usage Variance (MUV)**

Data:

- **Quantity of material purchased:** 3000 units
- **Value of material purchased:** Rs. 9000
- **Standard quantity of raw material per unit:** 25 units
- **Standard rate per unit:** Rs. 2
- **Opening stock:** Nil
- **Closing stock:** 500 units
- **Finished production:** 80 units

4. Material Variance Calculation (Alternative Case)

The standard output of a production house is **1000 pieces per month**, but actually **1020 pieces** were produced. The following data is provided:

	Standard	Actual
Usage	1.5 sq. ft per pad	1.3 sq. ft per pad
Price	Rs. 0.15 per sq. ft	Rs. 0.18 per sq. ft

Calculate all material variances.

5. Large-scale Material Variance Calculation

A manufacturing concern furnishes the following information:

Standard Data:

- **Material required for 70 kg of finished product:** 100 kg
- **Price per kg:** Rs. 1

Actual Data:

- **Output:** 210,000 kg
- **Material used:** 280,000 kg
- **Cost of materials:** Rs. 252,000

Calculate all material variances.

6. Material Mix and Usage Variance

Given the following information for a standard product, compute:

1. **Material Mix Variance (MMV)**
2. **Material Usage Variance (MUV)**
3. **Material Price Variance (MPV)**

Material	Standard	Actual
X	40 units @ Rs. 50	50 units @ Rs. 50
Y	60 units @ Rs. 40	60 units @ Rs. 45
Total	100 units	110 units

7. Material Mix, Usage, and Price Variance Calculation

Given the following information for a standard product, compute:

1. **Material Mix Variance (MMV)**
2. **Material Usage Variance (MUV)**
3. **Material Price Variance (MPV)**

Material	Standard	Actual
A	4 units @ Rs. 1.00	2 units @ Rs. 3.50
B	2 units @ Rs. 2.00	1 unit @ Rs. 2.00
C	2 units @ Rs. 4.00	3 units @ Rs. 3.00

8. Labour Variance Calculation

A firm gives the following data:

- **Standard time per unit:** 2.5 hours
- **Standard rate of pay:** Rs. 2 per hour
- **Actual hours worked:** 2,000 hours

- **Idle time:** 25% of actual hours
- **Actual output:** 1,000 units
- **Actual wages paid:** Rs. 4,500

Calculate:

1. **Labour Cost Variance (LCV)**
 2. **Labour Rate Variance (LRV)**
 3. **Labour Usage Variance (LUV)**
 4. **Idle Time Variance (ITV)**
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9. Labour Variance Calculation (Alternative Case)

Compute the **Labour Variances** from the following information:

- **Standard time per unit:** 3 hours
- **Standard rate of wages:** Rs. 6 per hour
- **Actual production:** 700 units
- **Actual time taken:** 2,000 hours
- **Actual wages paid:** Rs. 14,000
- **Idle time:** 50 hours