

Paul Robbins training and consultancy

Management Accounting: Decision and Control

Revising Standard Material Prices Using Index Numbers

Exercise 1

Model Answer

A company operates a standard costing system and uses a raw material that is a global commodity. The standard price was set based on a market price of £750 per kilogram when the material price index was 125.

In September, the material price index was 155. The quantity of material purchased and used was 500 kilograms which cost £459,000.

Tasks

- 1. Calculate the direct material price variance, based on the original standard material price per kilogram.***
- 2. Calculate the revised standard material price per kilogram, based on the change in the material price index.***
- 3. Calculate the direct material price variance, based on the revised standard material price per kilogram.***

1. Direct material price variance based on original standard material price

500 kilograms should have cost $(500 \times £750) = £375,000$

500 kilograms did cost = £459,000

Direct material price variance = £84,000 adverse

2. Revised standard material price per kilogram

£750 per kilogram $\times (155 / 125) = £930$

3. Direct material price variance based on revised standard material price

500 kilograms should have cost $(500 \times £930) = £465,000$

500 kilograms did cost = £459,000

Direct material price variance = £6,000 favourable