ACCA PM variance formula sheet

Use this sheet to learn the PM variance formulas and the steps for the advanced variances. A positive answer is favorable (F) and a negative answer is adverse (A), except idle time, which is always adverse.

Basic variances

Variance	Formula
Sales price	(AP - SP) × units sold
Sales volume	(Actual - budget units) × margin
Sales mix	(Actual mix qty - std mix qty) × margin
Sales quantity	(Std mix qty - budget qty) × margin
Material price	(SP - AP) × kg bought
Material usage	(Std kg - actual kg) × SP
Labor rate	(SR - AR) × hours paid
Idle time	Idle hours × SR
Labor efficiency	(Std hours - hours worked) × SR
Variable overhead expenditure	(SR × hours worked) - actual cost
Variable overhead efficiency	(Std hours - hours worked) × SR
Fixed overhead expenditure	Budget - actual cost
Fixed overhead volume	(Actual - budget units) × OAR

SP and AP are the standard and actual price. SR and AR are the standard and actual rate. Std kg and std hours are the standard allowed for the actual output. Margin is standard contribution per unit (marginal costing) or standard profit per unit (absorption costing). The fixed overhead volume variance only exists under absorption costing.

Material mix and yield in four steps

1. Put the actual total input into the standard mix.
2. Mix variance: for each material, (standard mix qty - actual qty) × standard price. Add them up.
3. Work out the standard input for the actual output.
4. Yield variance: (standard input - actual input) × average standard cost per kg of input.

Mix + yield = usage variance. Use one or the other in a reconciliation, never both. Only calculate mix and yield if the materials can be substituted.

Planning and operational variances

- Planning variance: (original standard - revised standard), using actual quantity for price and standard rate for hours.

- Operational variance: (revised standard - actual).
- Sales volume splits into market size (planning) and market share (operational).
- Study texts differ on valuing the usage variance at the original or revised price. State your choice and stay consistent.

Commentary checklist

- Say what the variance means in plain words, with its size.
- Give a cause taken from the scenario.
- Link variances that could share a cause.
- Say who is responsible and whether they could control it.
- Ask whether the standard is still realistic.
- For planning and operational variances, weigh fairness and motivation against the difficulty of setting a revised standard.