Revenue Is Up. Why Is Profit Down?

FP&A | Foundation | 45-60 minutes (estimate) | Basic P&L and spreadsheet formulas

Worked answer

USD	Budget	Actual	Change
Revenue	200,000	208,500	8,500
Variable cost	120,000	136,500	16,500
Contribution	80,000	72,000	-8,000
Fixed cost	30,000	38,000	8,000
Operating profit	50,000	34,000	-16,000

Profit effect / USD	Product A	Product B	Total
Volume	8,000	-4,000	4,000
Price	-6,000	4,500	-1,500
Unit variable cost	-6,000	-4,500	-10,500
Fixed cost	Not allocated	Not allocated	-8,000
Total change			-16,000

Revenue rose 4.25% (displayed 4.3%); operating profit fell 32.0%. The $4,000 favorable volume effect could not offset $20,000 of adverse price, unit-cost and fixed-cost effects. Actual profit is $50,000 + $4,000 - $1,500 - $10,500 - $8,000 = $34,000. Bridge residual is $0.00.

Questions worth asking

Sales: which customers or approved discounts explain Product A’s lower realized price? Request invoice-level pricing before changing discount rules. Operations: which supplier rates, usage or freight items explain each unit-cost increase? Finance: which fixed-cost accounts moved and will they recur? Request account detail before updating the forecast run rate.

Example CFO email

Subject: September profit shortfall - pricing and cost review

September revenue was $208,500, $8,500 above budget (+4.3%), while operating profit was $34,000, $16,000 below budget (-32.0%). Product-level volume changes at budget margins added $4,000. Price changes reduced profit by $1,500; unit variable cost increases reduced it by $10,500; and higher fixed costs reduced it by $8,000. These effects reconcile to the shortfall.

The commercial team mentions a campaign and operations mentions expedited freight, but neither comment quantifies the cause. I recommend Sales review Product A pricing and Operations review supplier, usage and freight costs. Finance should separate recurring from one-off fixed costs. We should update the forecast after those owners provide supporting detail; the bridge alone does not establish causation.

Scoring rubric - 100 points

Dimension	Points	Awarding guidance
Calculation	40	P&L 10; volume 8; price 6; unit cost 6; fixed cost 4; bridge total and actual profit 6. Credit correct method after an isolated input error.
Interpretation	25	Revenue versus profit 8; recognize mix within volume 5; separate causes from evidence 6; three relevant questions 6 (2 each).
Controls / audit trail	20	Traceable source formulas 8; residual check calculated independently against actual profit 8; explicit units and sign convention 4. A typed zero earns no check points.
Communication	15	Clear headline 5; owner / evidence / next action 6; <=200-word coherent email 4.

Numerical tolerance: $0.01, with percentages within 0.1 percentage point when rounded. Award method credit without double-penalizing one arithmetic error. Reasoned alternative questions are valid. A different fully reconciled convention can earn arithmetic credit, but it must be labeled and does not satisfy the requested convention in full. No universal passing score is prescribed.

Common mistakes and staged hints

Mistakes: confusing revenue variance with profit variance; using budget volumes in the price effect after already changing volume; reversing the cost sign; allocating fixed costs per unit; calling the campaign a proven cause; typing a balancing amount.

Hint 1: calculate contribution separately for each product. Hint 2: freeze budget unit margin for volume, then use actual volumes for the remaining unit changes. Hint 3: compare the summed bridge with actual profit less budget profit, using separately calculated P&Ls.

Instructor use

Suggested 60-minute session: 10 minutes on the smaller example, 25 minutes individual workbook work, 15 minutes peer review of the bridge and evidence claims, 10 minutes CFO-email discussion. For a 45-minute session assign the lesson beforehand. The timing is an untested planning estimate.

Before class, open both files in the intended spreadsheet application and confirm formulas calculate. Keep the worked solution out of the initial handout. These solutions are intentionally available for learning; the exercise is not a secure hiring test. For beginners provide the formulas; for advanced students use the optional sequence extension. The extension changes volume to $2,500 and price to $0, with unit cost -$10,500 and fixed cost -$8,000; the total remains -$16,000.

21 September 2026 | AI-assisted original synthetic case. Expert review and native Excel / Sheets testing pending. Local draft; usage permissions pending approval.