Audit a Broken Financial Model

Excel & Financial Modeling | Advanced | 90 minutes (estimate) | XFM-02 or equivalent

Worked numerical schedule

Measure	Value	Unit
COGS	300.00	USD
EBITDA	100.00	USD
EBIT	80.00	USD
Pretax income	70.00	USD
Tax expense and cash paid	17.50	USD
Net income	52.50	USD
Operating cash flow	52.50	USD
Investing cash flow	-40.00	USD
Financing cash flow	-20.00	USD
Closing cash	92.50	USD
Closing net PPE	220.00	USD
Closing debt	130.00	USD
Closing equity	292.50	USD
Closing assets	482.50	USD
Closing liabilities and equity	482.50	USD
Closing balance sheet residual	0.00	USD
Opening balance sheet residual	0.00	USD

Interpretation and recommended actions

Five errors are planted: COGS uses the tax rate instead of the COGS rate; depreciation is added to EBITDA instead of subtracted; net income is hardcoded to 60; the AR change has the wrong cash-flow sign; and the balance-sheet check is typed as zero. The corrected outputs match XFM-02: profit 52.5, cash 92.5 and assets 482.5, with genuine zero checks. A zero typed into a check proves nothing. An AR increase consumes cash under the case assumptions, and a profit hardcode disconnects the statements.

Scoring rubric - 100 points

Dimension	Points	Awarding guidance
Calculation	40	Five errors correctly identified 15 (3 each); five justified repairs 15 (3 each); correct final model 10.
Interpretation	25	Correct application of the case rules 10; explain the business decision 10; identify evidence or limitations 5.
Controls / audit trail	20	Traceable formulas 8; independent reconciliation 8; explicit units and signs 4.
Communication	15	Decision and numerical headline 5; actions with owners and evidence 5; concise response covering all required deliverables 5.

Award method credit after an isolated arithmetic error rather than repeatedly deducting for it. Equivalent account labels and well-supported alternative recommendations are acceptable. Numerical tolerance is 0.01 in the stated units; no universal passing score is prescribed.

Common mistakes

Fixing only the visible balance difference; accepting a typed zero; deleting the broken model; accepting the simulated AI explanation without tracing formulas.

Staged hints

Trace COGS to its rate. Inspect the EBIT sign. Change revenue and closing AR independently. Inspect whether the check itself is a formula.

Instructor notes

Prerequisites: XFM-02 or equivalent. Suggested use of the estimated 90 minutes: spend roughly 15% on the lesson and smaller example, 55% on the independent task, 20% on comparing approaches and 10% on the decision discussion. Timing is untested. Ask learners to explain why the numerical check is necessary but not sufficient.

For a simpler class, provide the model structure and work through one driver. For an extension, change one operational assumption and require a new reconciliation and recommendation. Verify the new key before distributing any variant. Open files in the intended spreadsheet application before class. Solutions are learning resources, not secure hiring examinations. Expert review remains pending.