Which Product Actually Contributes to Profit?

Controlling & Management Accounting | Foundation | 45 minutes (estimate) | Fixed and variable costs

Worked numerical schedule

Measure	Value	Unit
A contribution	20,000.00	USD
B contribution	15,000.00	USD
C contribution	4,000.00	USD
A allocated profit	8,000.00	USD
B allocated profit	5,000.00	USD
C allocated profit	-4,000.00	USD
Company profit	9,000.00	USD
Close C without replacement: profit change	-3,000.00	USD
Additional A units possible	300.00	units
Close C and expand A: profit change	3,000.00	USD
Allocation residual	0.00	USD

Interpretation and recommended actions

Contributions are $20,000 / $15,000 / $4,000; allocated profits $8,000 / $5,000 / -$4,000. Company profit is $9,000. Closing C alone reduces profit $3,000. Replacing part of released capacity with 300 A units adds $6,000 contribution, producing a net $3,000 improvement. Recommend the replacement only if the incremental A demand and $1,000 avoidability are supported; the allocation itself is not decision evidence.

Scoring rubric - 100 points

Dimension	Points	Awarding guidance
Calculation	40	Contribution view 15; allocated view 10; three-option economics 15.
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

Assuming all C overhead disappears; ignoring demand limits; allocating shared costs twice.

Staged hints

Calculate lost contribution first. Then add avoidable fixed costs. Use the lower of released capacity and incremental demand.

Instructor notes

Prerequisites: Fixed and variable costs. Suggested use of the estimated 45 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.