Understand the assumptions and conditions that make an investigation or model valid.

Key knowledge | Free preview

Learning target: Understand the assumptions and conditions that make an investigation or model valid.

An investigation begins by defining the decision, variables and assumptions before selecting a model. Calculate several cases and locate any threshold where the preferred option changes. A recommendation should connect the mathematics to the quantity the user actually expects, and should distinguish known prices from assumptions about future use, fees and the validity of the pricing rule.

Try the mathematics

Task 1. A club compares two invented printing plans. A costs $25 plus $3 per bundle; B costs $10 plus $5 per bundle. Let x be a non-negative integer. Form models, tabulate costs for x=2,4,6,8,10 and find the break-even input.

Continue with the full worksheet

The complete resource has 2 focused task sets and substantive worked solutions. Use an exercise book or print the A4 worksheet. This preview shows the first task without its full solution.

Find this resource: https://resources.aspiretopowerlearning.com.au/vce/skills/aspire-internal-gm-u1-o2-cross-kk-04/

Study-design reference

VCE Mathematics Study Design 2023-2027, version 1.1 (November 2022). General Mathematics; Unit 1; Outcome 2; Key knowledge; bullet 4; p. 32.

The learning target is a concise paraphrase. Aspire reference: aspire-internal-gm-u1-o2-cross-kk-04. This is an internal identifier, not an official VCAA code.

Free preview: share intact with attribution, without charging. Full resource rights are not included.

Original independent practice. Not published or endorsed by VCAA. The activity is not an official SAC, examination or complete treatment of every clause of a broad curriculum requirement.