Use technology to find a supporting example or a counterexample to a proposition.

Key skills | Free preview

Learning target: Use technology to find a supporting example or a counterexample to a proposition.

A numerical table can test a proposed invariant, such as the constant ratio in direct variation. Computational thinking makes that test explicit: generate inputs, calculate outputs, compute the claimed invariant and look for a failure. One valid differing ratio disproves a universal direct-proportion claim; a finite run of equal ratios alone does not prove an arbitrary rule.

Try the mathematics

Task 1. A claim says y=4x+6 represents direct variation. In a spreadsheet enter x=1,2,3,4, compute y and then y/x. Give the formulas and expected table.

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-u2-o3-cross-ks-04/

Study-design reference

VCE Mathematics Study Design 2023-2027, version 1.1 (November 2022). General Mathematics; Unit 2; Outcome 3; Key skills; bullet 4; p. 41.

The learning target is a concise paraphrase. Aspire reference: aspire-internal-gm-u2-o3-cross-ks-04. This is an internal identifier, not an official VCAA code.

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