Explain abstraction, decomposition, pattern recognition and algorithms in mathematical investigations.

Key knowledge | Free preview

Learning target: Explain abstraction, decomposition, pattern recognition and algorithms in mathematical investigations.

Computational thinking can separate data entry, transformation, model fitting and checking into distinct steps. In a spreadsheet, retain the original variables alongside transformed columns so predictions can be interpreted correctly. Use an XY scatter plot rather than treating input values as evenly spaced labels. Verify a transformed model against the original observations before reporting it.

Try the mathematics

Task 1. Enter x=1,2,3,4 in column A and y=5,11,21,35 in column B. In C2 enter =A2^2 and fill down. Plot y against column C, calculate a linear fit and translate it back to x.

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-kk-01/

Study-design reference

VCE Mathematics Study Design 2023-2027, version 1.1 (November 2022). General Mathematics; Unit 2; Outcome 3; Key knowledge; bullet 1; p. 41.

The learning target is a concise paraphrase. Aspire reference: aspire-internal-gm-u2-o3-cross-kk-01. This is an internal identifier, not an official VCAA code.

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