Choosing a model from a data pattern

Key knowledge | Free preview

Learning target: Recognise data patterns that suggest circular, exponential or logarithmic models.

A model should follow the pattern in the data and have parameters that make sense in context. Constant ratios suggest an exponential pattern; repeating rises and falls suggest a circular function. These clues select candidates, not guaranteed truths. Check predictions against all supplied data and discuss whether extrapolation is justified by the situation.

Try the mathematics

Task 1. At t=0,1,2,3,4 a population record is 3,6,12,24,48. Propose a rule and predict the value at t=5. Explain the evidence and one limitation.

Continue with the full worksheet

The complete resource has 3 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-mm-u2-o1-kk-05/

Study-design reference

VCE Mathematics Study Design 2023-2027, version 1.1 (November 2022). Mathematical Methods; Unit 2; Outcome 1; Key knowledge; bullet 5; p. 55.

The learning target is a concise paraphrase. Aspire reference: aspire-mm-u2-o1-kk-05. This is an internal identifier, not an official VCAA code.

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