Connecting three representations

Key knowledge | Free preview

Learning target: Understand correspondences among a function's numerical, graphical and symbolic representations.

Symbolic rules, numerical tables and graphs describe the same mathematical object in different ways. Use their strengths together: an exact expression supports algebraic reasoning, a table supplies numerical checks and a graph displays behaviour. If they disagree, investigate the inputs, domain restrictions and precision rather than assuming that the technology has resolved the issue automatically.

Try the mathematics

Task 1. Use technology to build a value table for $f(x)=x^3-2$ at $x=1,1.5,2$ and plot the graph. Relate the signs in the table to the real solution.

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-mm-u1-o3-kk-05/

Study-design reference

VCE Mathematics Study Design 2023-2027, version 1.1 (November 2022). Mathematical Methods; Unit 1; Outcome 3; Key knowledge; bullet 5; p. 48.

The learning target is a concise paraphrase. Aspire reference: aspire-mm-u1-o3-kk-05. This is an internal identifier, not an official VCAA code.

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