Understand the absolute-value function

Key knowledge | Free preview

Learning target: Understand the absolute-value function.

Absolute value measures distance from zero and can be written piecewise. A transformed absolute-value graph has a vertex where the inside expression changes sign. Solve an absolute-value equation by considering both permitted signs, then check the results in the original expression to avoid missing or adding solutions.

Try the mathematics

Task 1. Write y=|x-3|+2 as a piecewise function. Give its vertex, range and slopes on either side, and sketch the graph.

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/sm-u2-o1-kk-18/

Study-design reference

VCE Mathematics Study Design 2023-2027, version 1.1 (November 2022). Specialist Mathematics; Unit 2; Outcome 1; Key knowledge; bullet 18; p. 69.

The learning target is a concise paraphrase. Aspire reference: sm-u2-o1-kk-18. This is an internal identifier, not an official VCAA code.

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