Choosing graph windows for comparison

Key skills | Free preview

Learning target: Set graph domains and display ranges so relevant features of functions or relations are visible.

Display settings are part of mathematical communication. Choose an input interval and output range that show the feature under discussion, then use a second view if necessary. State the window alongside the graph. A cropped display can mislead even when the entered formula is correct, so check important features numerically or algebraically as well.

Try the mathematics

Task 1. Choose a window showing all three graphs $x\,e^{(-ax)}$, $a=0.5,1,2$, for non-negative x. Explain how to refine it for the $a=1$ peak and why a common vertical scale is useful.

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-u34-o3-ks-06/

Study-design reference

VCE Mathematics Study Design 2023-2027, version 1.1 (November 2022). Mathematical Methods; Units 3–4; Outcome 3; Key skills; bullet 6; p. 104.

The learning target is a concise paraphrase. Aspire reference: aspire-mm-u34-o3-ks-06. This is an internal identifier, not an official VCAA code.

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