Graph domains and viewing ranges

Key knowledge | Free preview

Learning target: Understand how graph-domain and range settings affect a technology display.

A graphing window controls what is visible without changing the mathematical function. A poor range can hide a zero, flatten a curve or cut off an important feature. Select windows with a purpose, compare them with algebra and a table, and record the actual settings so another person can interpret and reproduce the display.

Try the mathematics

Task 1. A graphing tool displays $f(x)=x^3-7$ with x from 0 to 1 and y from 0 to 1. Explain why the root may appear absent. Specify a better root-finding window and distinguish it from the mathematical domain.

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-u2-o3-kk-03/

Study-design reference

VCE Mathematics Study Design 2023-2027, version 1.1 (November 2022). Mathematical Methods; Unit 2; Outcome 3; Key knowledge; bullet 3; p. 56.

The learning target is a concise paraphrase. Aspire reference: aspire-mm-u2-o3-kk-03. This is an internal identifier, not an official VCAA code.

Free preview: share intact with attribution, without charging. Full resource rights are not included.

Original independent practice. Not published or endorsed by VCAA. The activity is not an official SAC, examination or complete treatment of every clause of a broad curriculum requirement.