Relating outputs to mathematical features

Key skills | Free preview

Learning target: Connect numerical, graphical and symbolic outputs to the same mathematical function or equation features.

A technology result becomes meaningful when it is connected to the original function or equation. Match table signs, graph crossings and symbolic solutions at the same inputs. Explain what is exact and what is approximate, and verify that all representations use the same constraints. Disagreement is a reason to inspect the workflow rather than select the most convenient output.

Try the mathematics

Task 1. Compare a symbolic result $x=\sqrt[3]{2}$, a numerical result $x\approx1.259921050$, and a plotted crossing for $f(x)=x^3-2$. State what each representation contributes and how to detect a mismatch.

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-ks-07/

Study-design reference

VCE Mathematics Study Design 2023-2027, version 1.1 (November 2022). Mathematical Methods; Unit 1; Outcome 3; Key skills; bullet 7; p. 49.

The learning target is a concise paraphrase. Aspire reference: aspire-mm-u1-o3-ks-07. 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.