Independent checks of technology output

Key skills | Free preview

Learning target: Check technology results and interpret them in relation to the investigative, modelling or problem-solving task.

Verification connects an output to both its defining mathematics and the original context. Substitute into the original rule, compare another representation and check units and constraints. A small numerical residual can support a rounded answer, but it cannot establish that the model itself is appropriate. Explain what your check confirms and what it leaves open.

Try the mathematics

Task 1. Independently check a tool's maximum (1,1/e) for $x\,e^{(-x)}$, $x \geq 0$, and its integral result $1-5e^{(-4)}$ on [0,4]. Explain what the checks establish.

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-12/

Study-design reference

VCE Mathematics Study Design 2023-2027, version 1.1 (November 2022). Mathematical Methods; Units 3–4; Outcome 3; Key skills; bullet 12; p. 104.

The learning target is a concise paraphrase. Aspire reference: aspire-mm-u34-o3-ks-12. This is an internal identifier, not an official VCAA code.

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