Know how to choose a suitable technology application for a mathematical context

Key knowledge | Free preview

Learning target: Know how to choose a suitable technology application for a mathematical context.

Use the population {0,2,4,6}, drawing uniformly and independently with replacement. Its mean is 3 and variance is 5. A simulation stores one mean per sample; a graph of g(x)=√(5/x) provides a separate standard-error model. Record your procedure and actual outputs, using the supplied results only as checks.

Try the mathematics

Task 1. Choose technology functions for simulating draws, retaining sample means, displaying their distribution and obtaining exact standard errors. Justify choices and clarify which standard-deviation divisor is used for an empirical check.

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-o3-kk-06/

Study-design reference

VCE Mathematics Study Design 2023-2027, version 1.1 (November 2022). Specialist Mathematics; Unit 2; Outcome 3; Key knowledge; bullet 6; p. 71.

The learning target is a concise paraphrase. Aspire reference: sm-u2-o3-kk-06. This is an internal identifier, not an official VCAA code.

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