Connect numerical, graphical and symbolic representations with the features of functions and equations

Key knowledge | Free preview

Learning target: Connect numerical, graphical and symbolic representations with the features of functions and equations.

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. Connect the symbolic expression σ/√n, the numeric table for this population, and the graph g(x)=√(5/x). Explain which quantity is being graphed and how it differs from the distribution of sample means.

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-04/

Study-design reference

VCE Mathematics Study Design 2023-2027, version 1.1 (November 2022). Specialist Mathematics; Unit 2; Outcome 3; Key knowledge; bullet 4; p. 71.

The learning target is a concise paraphrase. Aspire reference: sm-u2-o3-kk-04. This is an internal identifier, not an official VCAA code.

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