Selecting mathematics

Key knowledge | Free preview

Learning target: Choose mathematical ideas from relevant areas to analyse a contextual problem.

Choosing relevant mathematics is part of the solution, not a preliminary label. Explain how the variables and the objective determine the methods you use. Develop a model or statistical formulation from the supplied information, check its conditions, and interpret the result in the original context. A numerical answer needs a reasoned connection to the question.

Try the mathematics

Task 1. A simple random sample of 200 items from a very large production stream contains 64 defects. Investigate a population-defect estimate and approximate 95% interval using z=1.96. A supplier claims the defect proportion is 0.25. Select suitable mathematics for estimating the defect rate, and state its main sampling assumptions.

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-o2-kk-01/

Study-design reference

VCE Mathematics Study Design 2023-2027, version 1.1 (November 2022). Mathematical Methods; Units 3–4; Outcome 2; Key knowledge; bullet 1; p. 103.

The learning target is a concise paraphrase. Aspire reference: aspire-mm-u34-o2-kk-01. This is an internal identifier, not an official VCAA code.

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