Discrete and continuous conditional events

Key skills | Free preview

Learning target: Calculate and interpret probabilities under a specified distribution, using hand calculations for elementary cases.

Use the distribution to identify the event before calculating. For a discrete variable, sum masses; for a continuous variable, integrate density over an interval. Conditional probability divides the relevant joint event by the conditioning event, provided its probability is positive. Interpret the result in terms of the restricted group rather than as an unconditional probability.

Try the mathematics

Task 1. Let X be binomial with n=4,p=1/4. Find P(X=1), P(X≥1) and P(X=1 given X≥1) exactly.

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-o1-ks-17/

Study-design reference

VCE Mathematics Study Design 2023-2027, version 1.1 (November 2022). Mathematical Methods; Units 3–4; Outcome 1; Key skills; bullet 17; p. 103.

The learning target is a concise paraphrase. Aspire reference: aspire-mm-u34-o1-ks-17. This is an internal identifier, not an official VCAA code.

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