Interpret communication and dominance matrices.

Key knowledge | Free preview

Learning target: Interpret communication and dominance matrices.

A dominance matrix encodes who defeated whom, using an explicitly stated row-to-column convention. Its square counts two-step dominance routes, so combining the original matrix with its square uses both direct and indirect evidence. The ranking rule is a modelling choice rather than a universal definition of the strongest competitor; different weighting rules can give different rankings.

Try the mathematics

Task 1. In order A,B,C,D, a tournament has wins A over B and D, B over C, C over A and D, and D over B. Construct D, calculate row sums of $D+D^2$ and rank players using that rule.

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-internal-gm-u34-o1-aos2-matrices-kk-04/

Study-design reference

VCE Mathematics Study Design 2023-2027, version 1.1 (November 2022). General Mathematics; Units 3–4; Outcome 1; Key knowledge; Matrices; bullet 4; p. 91.

The learning target is a concise paraphrase. Aspire reference: aspire-internal-gm-u34-o1-aos2-matrices-kk-04. This is an internal identifier, not an official VCAA code.

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