Understand matrix arithmetic, powers and the dimension conditions for each operation.

Key knowledge | Free preview

Learning target: Understand matrix arithmetic, powers and the dimension conditions for each operation.

Matrix addition and subtraction require equal orders and work entry by entry. A product requires the first matrix’s column count to equal the second matrix’s row count. Product entries combine an entire row with a column. Matrix multiplication generally does not commute, and a matrix square is a product, not the square of each entry.

Try the mathematics

Task 1. Let A=[[1,2],[0,1]] and B=[[1,0],[3,1]]. Calculate A+B, 2A-B, AB, BA and A^2.

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-u1-o1-aos4-kk-03/

Study-design reference

VCE Mathematics Study Design 2023-2027, version 1.1 (November 2022). General Mathematics; Unit 1; Outcome 1; Key knowledge; Matrices; bullet 3; p. 32.

The learning target is a concise paraphrase. Aspire reference: aspire-internal-gm-u1-o1-aos4-kk-03. This is an internal identifier, not an official VCAA code.

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