Understand matrix dimensions, named types, transpose, arithmetic and powers.

Key knowledge | Free preview

Learning target: Understand matrix dimensions, named types, transpose, arithmetic and powers.

Matrix dimensions are recorded as rows by columns. Different names describe different properties, so a matrix may belong to several types at once. For example, an identity matrix is also square, diagonal, symmetric and binary. Transposition exchanges rows with columns; it does not reverse the order of entries within each original row.

Try the mathematics

Task 1. Classify R=[2,5,7], C=[[2],[5]], Z=[[0,0],[0,0]], I=[[1,0],[0,1]], D=[[3,0],[0,6]], and U=[[1,4],[0,2]]. Give each order and every applicable name among row, column, square, zero, identity, diagonal, symmetric, triangular and binary.

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-01/

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 1; p. 91.

The learning target is a concise paraphrase. Aspire reference: aspire-internal-gm-u34-o1-aos2-matrices-kk-01. This is an internal identifier, not an official VCAA code.

Free preview: share intact with attribution, without charging. Full resource rights are not included.

Original independent practice. Not published or endorsed by VCAA. The activity is not an official SAC, examination or complete treatment of every clause of a broad curriculum requirement.