View arithmetic and geometric sequences as functions defined recursively.

Key knowledge | Free preview

Learning target: View arithmetic and geometric sequences as functions defined recursively.

A sequence is a function whose inputs here are non-negative integers. An arithmetic sequence changes by a constant addition at every step. Its recurrence states the starting value and update rule; its explicit rule jumps directly to an indexed term. A sequence graph should show isolated points at its allowed integer inputs.

Try the mathematics

Task 1. Let u0=12 and u(n+1)=u(n)+3. Make a table for n=0,1,2,3,4, give an explicit rule, and plot these five points. State the domain.

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-aos2-kk-01/

Study-design reference

VCE Mathematics Study Design 2023-2027, version 1.1 (November 2022). General Mathematics; Unit 1; Outcome 1; Key knowledge; Arithmetic and geometric sequences, first-order linear recurrence relations and financial mathematics; bullet 1; p. 31.

The learning target is a concise paraphrase. Aspire reference: aspire-internal-gm-u1-o1-aos2-kk-01. This is an internal identifier, not an official VCAA code.

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