Relate numerical, graphical and symbolic information to function and equation features

Key skills | Free preview

Learning target: Relate numerical, graphical and symbolic information to function and equation features.

Use a calculator table, spreadsheet or short program to examine $u_0=100$, $u_{n+1}=0.8u_n+60$. Keep a record of inputs, iteration order and displayed precision. The closed form $300-200(0.8)^n$ gives an independent benchmark. Expected outputs below are mathematical checks for your run, not a claim that software has already run.

Try the mathematics

Task 1. Compare the recurrence table, the graph and the explicit formula. Explain how each represents the initial value, increasing behaviour and limit, and use week 4 to connect the forms.

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/sm-u1-o3-ks-08/

Study-design reference

VCE Mathematics Study Design 2023-2027, version 1.1 (November 2022). Specialist Mathematics; Unit 1; Outcome 3; Key skills; bullet 8; p. 63.

The learning target is a concise paraphrase. Aspire reference: sm-u1-o3-ks-08. This is an internal identifier, not an official VCAA code.

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