Explain when and how to use a base-ten logarithmic scale.

Key knowledge | Free preview

Learning target: Explain when and how to use a base-ten logarithmic scale.

A base-ten logarithmic scale records the exponent needed to express a positive quantity as a power of ten. Equal steps on the log scale represent equal ratios in the original quantity. Zero and negative original values cannot be shown on this real logarithmic scale. Keep the scale values distinct from the measured quantities they represent.

Try the mathematics

Task 1. Make a table of x and log10(x) for x=1,10,100,1000,10000. Position these five values on a log10 horizontal scale and state the factor represented by a rise from 2 to 5.

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-aos1-kk-03/

Study-design reference

VCE Mathematics Study Design 2023-2027, version 1.1 (November 2022). General Mathematics; Units 3–4; Outcome 1; Key knowledge; Data analysis; bullet 3; p. 89.

The learning target is a concise paraphrase. Aspire reference: aspire-internal-gm-u34-o1-aos1-kk-03. 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.