Choose and apply the sine or cosine rule to solve non-right triangles.

Key skills | Free preview

Learning target: Choose and apply the sine or cosine rule to solve non-right triangles.

The cosine rule generalises Pythagoras by adjusting for the included angle. Match the opposite side with that angle before substituting. When two sides and their included angle are known, the area is half their product times the sine of the angle. These formulas do not require drawing an inaccurate perpendicular height.

Try the mathematics

Task 1. Two sides are 5 cm and 7 cm with included angle 60°. Find the opposite side exactly and the area exactly.

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-u2-o1-aos4-ks-02/

Study-design reference

VCE Mathematics Study Design 2023-2027, version 1.1 (November 2022). General Mathematics; Unit 2; Outcome 1; Key skills; Space, measurement and applications of trigonometry; bullet 2; p. 40.

The learning target is a concise paraphrase. Aspire reference: aspire-internal-gm-u2-o1-aos4-ks-02. This is an internal identifier, not an official VCAA code.

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