Learning Targets

Right Triangle Trigonometry

Lesson 1: Angles and Steepness

- I can explain why knowing one acute angle in a right triangle determines the ratio of the side lengths.

Lesson 2: Half a Square

- I can determine the side lengths of triangles with 45, 45, and 90 degree angles.

Lesson 3: Half an Equilateral Triangle

- I can determine the side lengths of triangles with 30, 60, and 90 degree angles.

Lesson 4: Ratios in Right Triangles

- I can build a table of ratios of side lengths of right triangles.

Lesson 5: Working with Ratios in Right Triangles

- I can use a table of ratios of side lengths of right triangles to estimate unknown angle measures.

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Lesson 6: Working with Trigonometric Ratios

- I can use cosine, sine, and tangent to find side lengths of right triangles.

Lesson 7: Applying Ratios in Right Triangles

- I can use cosine, sine, and tangent to find the height of an object.

Lesson 8: Sine and Cosine in the Same Right Triangle

- I can explain why $\sin(\theta) = \cos(90 - \theta)$.

Lesson 9: Using Trigonometric Ratios to Find Angles

- I can use arccosine, arcsine, and arctangent to find angle measures in right triangles.

Lesson 10: Solving Problems with Trigonometry

- I can use trigonometry to solve problems.

Lesson 11: Approximating Pi

- I can explain how to use regular polygons to approximate the value of π.