

Trigonometry

6.1 Investigate right triangle trigonometry

CCSS	4 – Mastery	3 – Proficient	2 - Basic	1 – Below Basic	0 – No Evidence
<p>Understand side ratios (G.SRT.6)</p> <p>Use sine and cosine (G.SRT.7)</p>	<p>Can extend thinking beyond the standard, including tasks that may involve one of the following:</p> <ul style="list-style-type: none"> • Designing • Connecting • Synthesizing • Applying • Justifying • Critiquing • Analyzing • Creating • Proving 	<p>Use properties of similar right triangles to form the definitions of</p> <ul style="list-style-type: none"> • sine • cosine • tangent <p>Explain and use the relationship between the sine of an acute angle and the cosine of its complement.</p>	<p>Use side ratios to prove angles are congruent between triangles leading to similar triangles.</p>	<p>Find the trig ratios of a given right triangle.</p>	<p>Little evidence of reasoning or application to solve the problem</p> <p>Does not meet the criteria in a level 1</p>
<p>Use Trig Ratios (G.SRT.8)</p>		<p>Use trigonometric ratios and the Pythagorean Theorem in applied problems to find</p> <ul style="list-style-type: none"> • unknown sides • unknown angles 	<p>Given an image, use trigonometric ratios and the Pythagorean Theorem in applied problems to find</p> <ul style="list-style-type: none"> • unknown sides • unknown angles 	<p>Given an image, solve right triangles using trigonometric ratios for:</p> <ul style="list-style-type: none"> • unknown sides • unknown angles 	

G.SRT.6 Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles.

G.SRT.7 Explain and use the relationship between the sine and cosine of complementary angles.

G.SRT.8 Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems. ★