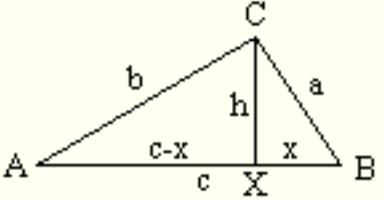


Common Core State Standards for Mathematics		
Domain: Similarity, Right Triangles and Trigonometry		
Theorems Involving Similarity (prove theorems involving similarity) (G-SRT)		
High School		
Score 4.0	In addition to Score 3.0, in-depth inferences and applications that go beyond instruction to the standard. The student will:	Example Activities
	3.5 In addition to score 3.0 performance, in-depth inferences and applications with partial success.	
Score 3.0	<p><b>The student will:</b></p> <ul style="list-style-type: none"> <li>prove theorems about triangles: include a line parallel to one side of a triangle divides the other two sides proportionally, and conversely; the Pythagorean theorem proved using similar triangles (G-SRT.4)</li> <li>use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures (G-SRT.5)</li> </ul> <p><b>The student exhibits no major errors or omissions.</b></p>	<p>In a right triangle, with sides (legs) <math>a</math> and <math>b</math>, and hypotenuse <math>c</math>, then <math>c^2=a^2+b^2</math>.</p> <p>An algebraic proof using similar triangles <math>ABC</math>, <math>CBX</math>, and <math>ACX</math> (in the diagram):</p> <p>Since corresponding parts of similar triangles are proportional, <math>a/x=c/a</math> or <math>a^2=cx</math>. And <math>b/(c-x)=c/b</math> or <math>b^2=c^2-cx</math> or <math>c^2=cx+b^2</math>. Substituting <math>a^2</math> for <math>cx</math>, we get <math>c^2=a^2+b^2</math>.</p> 
	2.5 No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content	
Score 2.0	<p><b>There are no major errors or omissions regarding the simpler details and processes as the student will:</b></p> <ul style="list-style-type: none"> <li>recognize or recall specific vocabulary, such as: <ul style="list-style-type: none"> <li>○</li> </ul> </li> <li>perform basic processes, such as: <ul style="list-style-type: none"> <li>○ recognize or recall theorems about triangles</li> </ul> </li> </ul> <p><b>However, the student exhibits major errors or omissions regarding the more complex ideas and processes.</b></p>	<p><u>Triangle Theorem(s) Matching</u> – Students will be given the descriptions and names of different triangle theorems on index cards. The students will be tasked to match the correct theorem description with its corresponding name.</p>
	1.5 Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content	
Score 1.0	With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.	
	0.5 With help, a partial understanding of the 2.0 content but not the 3.0 content	
Score 0.0	Even with help, no understanding or skill demonstrated.	