

**Task: Solar Lights Rubric**

Category	Level 1	Level 2	Level 3	Level 4
<b>Knowledge/ Understanding</b>	<ul style="list-style-type: none"> <li>demonstrates limited knowledge of the properties of the trigonometric ratios and trigonometry of acute triangles</li> </ul>	<ul style="list-style-type: none"> <li>demonstrates some knowledge of the properties of the trigonometric ratios and trigonometry of acute triangles</li> </ul>	<ul style="list-style-type: none"> <li>demonstrates considerable knowledge of the properties of the trigonometric ratios and the trigonometry of acute triangles</li> </ul>	<ul style="list-style-type: none"> <li>demonstrates thorough knowledge of the properties of the trigonometric ratios and the trigonometry of acute triangles</li> </ul>
<b>Thinking</b>	<ul style="list-style-type: none"> <li>uses planning and critical thinking processes with limited effectiveness (e.g., little evidence of recognition of trigonometric relationships in the problem)</li> </ul>	<ul style="list-style-type: none"> <li>uses planning and critical thinking processes with some effectiveness (e.g., some evidence of recognition of trigonometric relationships in the problem)</li> </ul>	<ul style="list-style-type: none"> <li>uses planning and critical thinking processes with considerable effectiveness, (e.g., considerable evidence of recognition of trigonometric relationships in the problem; considerable evidence of well organized and constructed mathematical arguments)</li> </ul>	<ul style="list-style-type: none"> <li>uses planning and critical thinking processes very effectively (e.g., detailed evidence of recognition of trigonometric relationships in the problem; detailed evidence of well organized and constructed mathematical arguments)</li> </ul>
<b>Communication</b>	<ul style="list-style-type: none"> <li>expresses and organizes mathematical thinking with limited effectiveness</li> <li>uses mathematical vocabulary and notation with limited effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>expresses and organizes mathematical thinking with some effectiveness</li> <li>uses mathematical vocabulary and notation with some effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>expresses and organizes mathematical thinking with considerable effectiveness</li> <li>uses mathematical vocabulary and notation with considerable effectiveness (e.g., uses good form for presenting solutions)</li> </ul>	<ul style="list-style-type: none"> <li>expresses and organizes mathematical thinking with a high degree of effectiveness</li> <li>uses mathematical vocabulary and notation with a high degree of effectiveness (e.g., uses very good form for presenting solutions)</li> </ul>
<b>Application</b>	<ul style="list-style-type: none"> <li>applies knowledge of the properties of the trigonometric ratios and the trigonometry of acute triangles with limited effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>applies knowledge of the properties of the trigonometric ratios and the trigonometry of acute triangles with some effectiveness</li> </ul>	<ul style="list-style-type: none"> <li>applies knowledge of the properties of the trigonometric ratios and the trigonometry of acute triangles with considerable effectiveness (e.g., applies the sine law and finds a perpendicular distance with considerable effectiveness)</li> </ul>	<ul style="list-style-type: none"> <li>applies knowledge of the properties of the trigonometric ratios and the trigonometry of acute triangles with a high degree of effectiveness (e.g., applies the sine law and finds a perpendicular distance with a high degree of effectiveness)</li> </ul>