## Section 1: Sine Law and Cosine Law

Task 1 - Communication: Summarize what you learned about the topics in this lesson in the box below. You may use sentences, point form, diagrams, equations, sample problems, or anything else you think will communicate the main learnings of this section.

Task 2: Knowledge: Calculate the measure of the indicated side or angle in each triangle.
a)

b)

c)

d)


g)

f)

h)


## Task 3: Thinking

a) Why does the sine law have three parts to its equation? How do you tell which parts to use?
b) Do you think that the Sine Law can be used for right angle triangles? Choose a problem from assignment \#2 and test it out. Then make a conclusion.

## Task 4: Application

a) Mr. Jensen is trying to hit his golf ball between two trees. He estimates the distances shown. Within what angle must Mr. Jensen make his shot, in order to pass between the trees? Round to the nearest tenth of a degree.

b) Max, who is 1.5 m tall, is standing at a distance of 14 m from a building. From his point of view, the bottom and top of the building are separated by $36^{\circ}$. How tall is the building, to the nearest hundredth of a meter?

| Categories | Level 1 | Level 2 | Level 3 | Level 4 |
| :---: | :---: | :---: | :---: | :---: |
| Communication <br> - expression and organization of main topics using written and visual forms. <br> - use of vocabulary, and terminology of the topic | Limited effectiveness | Some effectiveness | Considerable effectiveness | High degree of effectiveness |
| Knowledge <br> - understands content <br> - can correctly use formulas and perform calculations | Limited effectiveness | Some effectiveness | Considerable effectiveness | High degree of effectiveness |
| Thinking <br> - understands problem and carries out a plan to solve <br> - makes convincing arguments for why solution is reasonable | Limited effectiveness | Some effectiveness | Considerable effectiveness | High degree of effectiveness |
| Application <br> - transfer of knowledge and skills to new context <br> - makes connections between various concepts | Limited effectiveness | Some effectiveness | Considerable effectiveness | High degree of effectiveness |

