Word Problem 🡪 Real World Problem

Create a video to explore a real world problem that uses the sine law, cosine law or both to arrive at a solution. Use live action, music, special effects and imaginative computer animation to display the problem and show the solution. The goal of this project is to attract young people to mathematics and display the current mathematical concepts in a way that is understandable, exciting and displays the use of the current mathematical topic being studied. For example <http://youtu.be/EpTXMB3F8p8>

Guidelines:

🡪 Provide a hook! What is the problem that needs to be solved?

🡪 Show the known information

🡪 Highlight the mathematical concept that is going to be used to solve the problem

🡪 Show a diagram of the situation

🡪 Show the solution step by step

🡪 Display the solution to the problem

🡪 No more than 4 minutes no less than 1.5 minutes

🡪 Make it interesting and entertaining for teens

**Assessment:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Beginning** | **Developing** | **Accomplished** | **Exemplary** |
| **Trigonometric Problem (requires the use of the sine or cosine law)** | Three or more components are missing | Two components are missing but the rest are fully included | All components are correctly included – but briefly explained OR one component is missing and the rest are fully included | All components are correctly included – detailed and thorough |
| * Real world trigonometric problem used/created * Highlights the mathematical concept being used * Shows the formula * Provides step by step solution * Displays the final solution to the problem | | | | |
| **Video & Audio** | Video and audio are inconsistent. There is poor video quality and voice projection, making it difficult to communicate ideas. | The video is unorganized or inconsistent (too loud/ too soft/ garbled) and insufficiently communicates the main idea. Ideas are communicated with weak voice projection and/or lack of preparation. | The video is clear and has decent organization but may only partially assist in communicating the main idea. Ideas are communicated with proper voice projection, adequate preparation and delivery. | Video is organized and has good audio so that it clearly and effectively assists in communicating the main idea. Ideas are communicated with enthusiasm, proper voice projection, appropriate language and clear delivery. |
| **Originality** | Related trig problem is the same as one done in class or in the textbook. | Related trig problem is somewhat unique but has components that look similar to ones discussed in class or is like a problem from the textbook (different scenario). | Related trig problem is unique and unlike any problem we did in class or in the textbook. |  |
| **Sources** | Citations page included but barely filled out | Website and a couple of pictures are cited  Several blanks in citations | Websites and all pictures correctly/fully cited |  |