

## Applications of the Law of Sine and the Law of Cosine

Create an original application problem that involves the Law of Sine and the Law of Cosine. Be creative with your topic. If you are a Physics student (and even if you are not), this would be a good place to show your knowledge of vectors. Your portfolio must have the following:

1. A paragraph stating the problem. Be original.
2. A question that involves the Law of Sine in the solution. Make sure you are using the correct case.
3. A paragraph that describes the solution to #2. In your explanation, state why you solved your problem with the Law of Sine. There should be a drawing of your triangle somewhere in your explanation.
4. A question that involves the Law of Cosine in the solution. Make sure you are using the correct case.
5. A paragraph explaining your solution to #4. In your explanation, state why you solved your problem with the Law of Cosine. Make sure you have all the algebra work (show all steps, especially if you have an SSA case!) and your clear explanation. There should be a drawing of your triangle somewhere in your explanation.
6. If you are using resources (internet, books, magazines, etc.), make sure you list them...

### An "A" portfolio

1. Meets all the due dates
2. Is typed
3. Is clearly explained. What I mean by this is that someone from next years Precalculus class should be able to solve this problem based on your explanation.
4. It's original. It's a problem that doesn't involve flying!
5. Has something extra. Like an original question. SSA cases for Law of Cosines have an automatic A consideration. However, you don't have to have an SSA case for an A.

### A "B" portfolio:

1. Meets all the due dates
2. Is typed
3. Is well explained
4. Original

### An "Incomplete" portfolio:

1. Doesn't meet the due dates
2. Is not typed
3. Is not well explained
4. Doesn't follow directions. In other words, it's missing something...

When you complete your portfolio...

1. You must have a title page with your name, a title, the period of your class, and the date.
2. Please — NO PLASTIC PAGES!!!

Due Dates:

Topic —

Rough draft -???

Final draft -??? I would like to have these done by Thanksgiving break...