Lesson Plan

**Law of Sines**

Materials

* Computers
* Geogebra/Geogebra Files
* Worksheet
* Classroom Feud Law of Sines SmartBoard game
* Polleverywhere group of questions including exit slip questions

Lesson

* Part I
  + Students will work with a partner and begin the investigation in PART I.
  + The teacher should be walking around helping the students wherever necessary.
  + After the students have texted in their answers to the questions in PART I, discuss their findings.
    - Define The Law of Sines
  + Poll questions:
    - [What do you notice about these ratios?](http://www.polleverywhere.com/free_text_polls/MTg3ODA4MDYzOQ)
    - [Why do you think the ratios are this way?](http://www.polleverywhere.com/free_text_polls/MjA0NDc5MDM2MQ)
  + Students will work on the practice problems.
    - Do the first one as a class.
* Part II
  + Students will continue on to create a proof of the Law of Sines.
  + They will open the second Geogebra file and do the first question with the teacher.
    - This way, the teacher can model how she wants the answers as well as how they can verify what they have gotten with the given triangles and making measurements.
  + Poll questions:
    - [What 3 pieces of information do you need to solve a problem using law of sines?](http://www.polleverywhere.com/free_text_polls/NjAxNzczODY4)
    - [Why are the sin of two supplementary angles equal?](http://www.polleverywhere.com/free_text_polls/LTg3ODc4MzQy)
  + At the end, the teacher will explain how to save and upload their files to dropitto.me/msnardini
* Closure
  + Teacher will remind students of what they investigated today. The law of sines:
  + Teacher will open up the SmartBoard Classroom Feud game. The students will split up into two teams and work on the exercises individually as well as with a team. The team will send one member up to answer the question. After a person has been sent up to answer for their team they may not answer anymore.
  + Exit slip will be a poll that is texted in before they leave.
    - Questions are:

[What angle do I NOT need to use the sine of to answer this problem?](http://www.polleverywhere.com/multiple_choice_polls/LTExNDQ3MDU2ODE)

[What were the main methods used in the proof of the Law of Sines?](http://www.polleverywhere.com/multiple_choice_polls/MTIzMzIxNzIwMw)

[In a triangle, if I only know angle C and angle A, how can I find the measure of angle B?](http://www.polleverywhere.com/free_text_polls/MTc0NjgxMjQ1OA)

[What is the Law of Sines about?](http://www.polleverywhere.com/multiple_choice_polls/MjA5NTY0Njk4Ng)

[Tomorrow, for the law of sines you need..](http://www.polleverywhere.com/multiple_choice_polls/MTU3NTA0MjA1NQ)

* + Hand out homework.