

Objectives:

Using the **COS/SINE RULES** applet, the student will solve oblique triangles by applying the Sine and Cosine Rules.

Functionality:

When the student presses **START**, the **COS/SINE RULES NOTE** will be displayed.

After reading the note, the student should view the **SKETCH** for further explanation.

VIEWS will allow the student to select a new problem, solve the given triangle, or view the current problem.

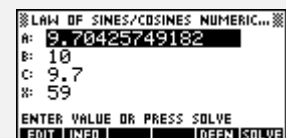
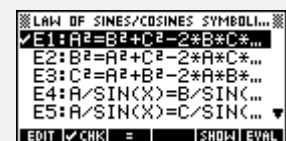
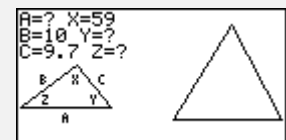
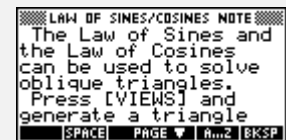
New Triangle will display an oblique triangle with three defined measurements. The diagram in the left bottom corner is for reference. For example, side A is always the base and $\angle X$ is always opposite side A.

Solve Triangle takes the student to the **COS/SINE RULES SYMBOLIC VIEW**. The student should check the appropriate equation to be solved.

When the equation is checked, press **NUM** to see the **NUMERIC VIEW**. The given information will already be entered. Highlight the unknown, and press **SOLVE**.

To return to the symbolic view, press **SYMB**.

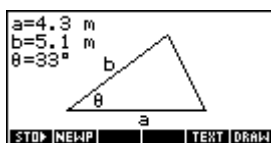
To view the problem, select **See Triangle** from the views menu.



Additional Exploration:

Use the **Solve** applet to solve for the area of oblique triangles. Enter the formulas in the symbolic view, press **NUM** to enter the known values, highlight the unknown value and press **Solve**. An example would be:

Find the area of the following triangle:



SOLVE SYMBOLIC VIEW

✓E1: $K = 1/2 * A * B * \sin(\theta)$

E2: $K = \sqrt{S(S-A)} * (S-B)...$

E3:

E4:

E5:

EDIT ✓CHK = SHOW EVAL

SOLVE NUMERIC VIEW

K: 5.97196701894

A: 4.3

B: 5.1

θ : 33

ENTER VALUE OR PRESS SOLVE

EDIT INFO DEFN SOLVE

Programs associated with this applet:

.LSC.NT, .LSC.SO, .LSC.SE, .LSC.SV