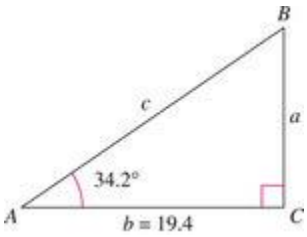
Law of Sines (Section 6.1)

Warm-up: Solve the following triangle.



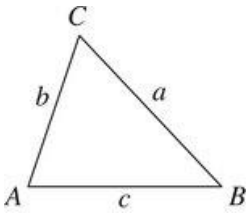
a = _____

c = _____

B = _____

Law of Sines

Consider the following oblique triangle: Oblique Triangle = _____

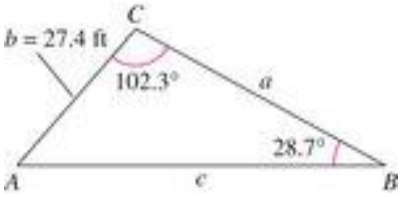


Law of Sines

(*Allows you to* _____)

$$\frac{sin\ A}{a} = \frac{\sin B}{b} = \frac{sinC}{c}$$

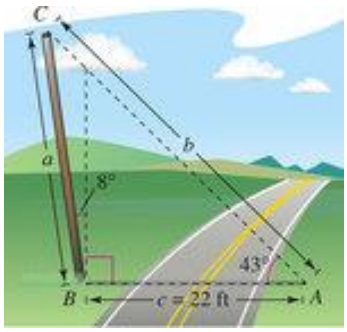
Example 1: Solve the triangle.



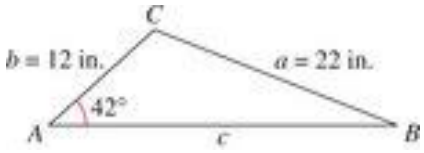
Practice Problem 1: Solve triangle ABC: A = 30°, B = 45°, and a = 32 feet.

Law of Sines (Section 6.1)

Example 2: A pole tilts toward the sun at an 8° angle from the vertical, and it casts a 22-foot shadow. The angle of elevation from the tip of the shadow to the top of the pole is 43°. How tall is the pole?



Example 3: Solve the triangle.



Example 4: Solve the triangle.

a = 15, b = 25, and A = 85°

Example 5: Solve the triangle.

a = 12, b = 31, A = 20.5°