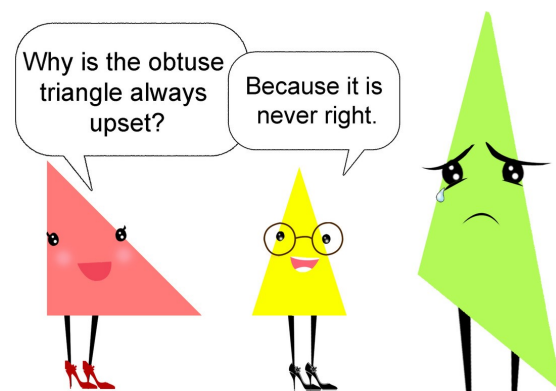$$c^2 = a^2 + b^2 - 2ab\cos C$$

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

$$A = \frac{1}{2}ab\sin C$$
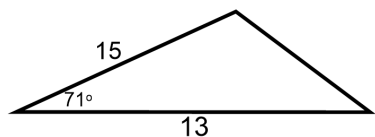
$$A = \sqrt{s(s-a)(s-b)(s-c)}$$

UNIT II OBLIQUE TRIANGLES

Why is the obtuse triangle always upset?

Because it is never right.

II.4 AREA EQ: How do I find the area of a triangle without known base or height?

15
71°
13

ex. Find the area of a triangle with the given parameters.

$m\angle A = 71°$
c = 15
b = 13

II.2 LAW OF SINES EQ: How do I solve oblique triangles using the law of sines?

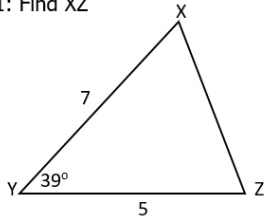Example: Using the following information, find side a and side c

b = 6
$m\angle B = 56°$
$m\angle C = 42°$

II.I LAW OF COSINES
EQ: How does the law of cosines help me solve oblique triangles?

Heron's Formula:

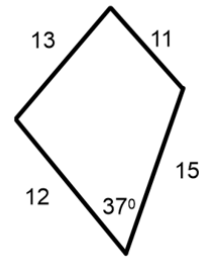ex. Find the area $j = 8$
$k = 11$
$l = 7$

Ex 1: Find XZ

Ex 2: Solve for m<B
$a = 9$
$b = 7$
$c = 3$

ex. Find the area of the quadrilateral.

II.3 AMBIGUOUS CASE
EQ: What type of oblique triangles have no solutions or multiple solutions?

Law of Sines

Law of Cosines

Ambiguous Case

Ex 1: Solve for $m\angle Y$
$m\angle X = 27°$
$y = 5$
$x = 4$

Ex 2: Solve for z
$m\angle X = 27°$
$y = 5$
$x = 6$

Ex 3: Solve for z
$m\angle X = 27°$
$y = 5$
$x = 2$