7.7b Law of Cosines / Area of a Triangle

If you are asked to solve triangle ABC, why can we not use the Law of Sines?

Law of Cosines

For non-right angle trig when a side/angle pair does not exist.

Example: find a side Example: find an angle

Area of a triangle

OLD formula A= (1/2)bh (need to know base and height)

NEW formula A=(1/2)abSinC

Can find area of a triangle if two sides and an included angle are known.

Example:

Derive the formula A=(1/2)abSinC (Hint: memorize this)