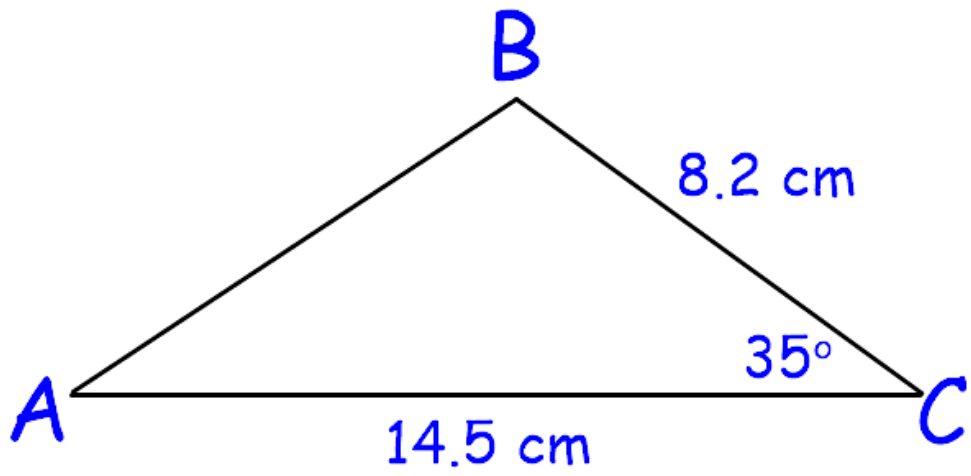
Unit 7 – Trigonometry

The study of the relationships of sides and angles in triangles.

Day 5: The Cosine Law for Non-Right Triangles

Learning Goal

"Solve" the triangle below.



sohcahtoa?

Sine Law?

The Cosine Law!

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

The Cosine Law is **ALSO** used to solve for the lengths of sides and measures of angles in _____ triangles.

NOTE: We use The Cosine Law when we **don't** have a _____ side and angle. Instead, we have

two sides and a _____ angle

OR

_____ sides

Using The Cosine Law to Solve for a Side

The Cosine Law is set-up to solve for sides.

To use The Cosine Law to solve for a side,

simply _____ everything in and _____.

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

To use The Cosine Law to solve for a side:

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

Using The Cosine Law to Solve for an Angle

We can also use Cosine Law to solve for an angle when we are given _____!

We do this by _____ the formula.

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

To use The Cosine Law to solve for an angle:

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