Precalculus Unit 1: Trigonometry
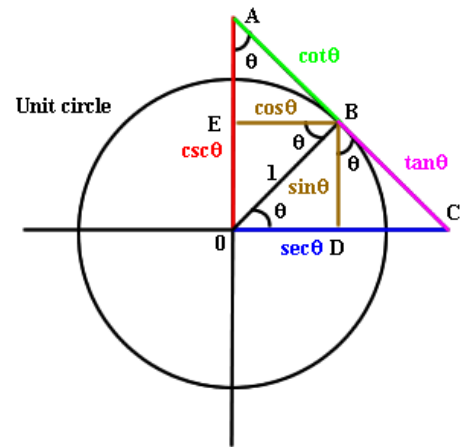

Our Learning Goals:

We will…

- ✓ review special case right triangle measurements, then build a Unit Circle to help us understand the relationship between angle measures and side measures in a triangle.
- ✓ describe angle measure in various ways, including negative, co-terminal, radian and degree.
- ✓ investigate the six trigonometric ratios (sine, cosine, tangent, cotangent, secant and cosecant) as well as the two inverse trigonometric ratios (arcsine and arccosine).
- ✓ apply the sine/cosine ratios to situations using the Law of Sines and the Law of Cosines.

Why do we study this?

- ❖ The trigonometric ratios can be used to solve for side and angle measures in situations where a triangle can model the circumstances.
- ❖ Using the two laws (which are also used in Physics), we can find the distance across a lake or canyon, navigational headings, and heights/lengths by triangulation.

How we will show what we have learned…

Formative Assessments	Summative Assessments
Ongoing formative assessments during lesson and homework activities will help in monitoring learning and providing feedback for students.	Summative assessments to measure learning at the end of concepts will include the following: • Test: Special right triangles and ratios • Test: Unit circle, angle conversions, ratios, right triangle trigonometry • Unit 1 Exam (District-wide)

Sample Problem:

A lumberjack stands 15 meters from the base of a tree along level ground. If the angle of elevation to the top of the tree is 36°, how tall is the tree?

Additional Support:

- Check teacher web pages for posted daily notes, worksheets, assignments, etc.
- Search the specific topic on the web. We recommend Khan Academy and Illuminations.
- Attend tutorials – you can see ANY math teacher for help.

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Curriculum and Instruction

Questions? Please contact your Precalculus teacher.

We look forward to a great year!

--Your EM-S ISD Precalculus Team