Unit 11: Trigonometric Identities (Part 2)

Content Area: **Mathematics**
Course(s): **PreCalc Trig H**
Time Period: **Semester 2**
Length: **2 weeks**
Status: **Published**

Standards - NJCCS/CCSS

CCSS.Math.Content.HSF-TF.C	Prove and apply trigonometric identities
CCSS.Math.Content.HSF-TF.C.9	Prove the addition and subtraction formulas for sine, cosine, and tangent and use them to solve problems.

Enduring Understandings

Trigonometric identities are valuable in a wide variety of contexts because they allow for expressions to be represented in more convenient forms.

Essential Questions

How are the sum, difference, double, and half angle formulas developed for sine, cosine, and tangent?

How are the sum, difference, double, and half angle formulas for sine, cosine, and tangent applied to evaluate expressions without a calculator?

What strategies are used when proving trignometric identities?

Knowledge and Skills

SWBAT develop and apply sum and difference formulas for sine, cosine, and tangent.

SWBAT develop and apply double angle formulas for sine, cosine, and tangent.

SWBAT develop and apply half angle formulas for sine, cosine, and tangent.

SWBAT apply sum, difference, double, and half angle formulas for sine, cosine, and tangent.

SWBAT prove trignometric identities.

Resources

Trigonometry

Authors: Lial, Hornsby, Schneider

Graphing Calculator

www.desmos.com

www.flipgrid.com

www.graphfree.com