# **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