6. Trigonometric Identities

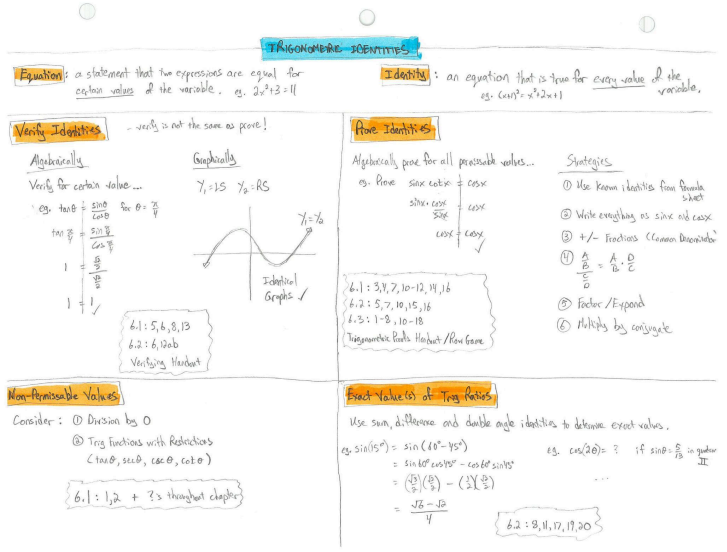
6. Trigonometric Identities Outline

6.1	Reciprocal, Quotient, and Pythagorean Identities Intro and Simplify
6.1B	Reciprocal, Quotient , and Pythagorean Identities Verify Numerically, Graphically and Prove Algebraically
6.2	Sum, Difference, and Double-Angle Identities
6.3	Proving Identities Physics, More Complicated, Factoring
6.4	Solving Trigonometric Equations Using Identities More complicated substitution, Factoring
	Assessment
	Review
	6. Trigonometric Identities Exam

Trig Identities notes

[Interactive Notes for Students]

Trigonometric Identities Summary Chart



Download PDF version of the chart

6.1 Reciprocal, Quotient, and Pythagorean Identities

Algebra Skills Required for Proving and SimplifyingTrig Identities

Algebra Skills Worksheet
I use the Algebra Skills worksheet to review operations with fractions. I find that when I review skills with fractions first, students find it easier to simplify expressions involving trig identities.

Class Notes

The McGraw-Hill Ryerson PreCalculus 12 Text is used as the Main Resource.
Assignments in the Powerpoint Lesson Plans refer to pages and questions in the PreCalculus 12 text.

6.1A Reciprocal, Quotient, and Pythagorean Identities
6.1B Reciprocal, Quotient, and Pythagorean Identities
6.1 Formative assessment Verifying Identities and Stating Restrictions

Supporting Documents

Simplifying Trigonometric Expressions
Simplifying Trigonometric Expressions Penguin

Digital Resources

6.1 Deriving Pythagorean Identities (Notebook File)
6.1 Matching Trig Identities (Notebook File)

6.2 Sum, Difference, and Double-Angle Identities

Class Notes

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6.2 Sum Difference and Double Angle Identities

Pedagogical Shifts: TRANSFORM, moving from Traditional to Student-Centered

Shifting from Memorization to Higher-level Thinking

Sum, Difference and Double Angle Identities, Find the Error

In this activity, students are given worked out solutions to questions involving sum, difference and double angle identities. The worked out solutions have an error in them. Students must identify the error and provide a correct complete solution. I like that this activity allows students to think of this style of question in a scaffolded manner. The Mathematical Processes that are involved in this activity include using ***communication*** in order to learn and express understanding and develop mathematical ***reasoning.***

Trigonometry Identity Jigsaw Puzzle

Students must cut apart 16 squares and reassemble a 4 by 4 square where the adjacent sides are equivalent expressions.

6.2 Sum Difference and Double Angle Identities Extra Practice

6.3 Proving Identities

Class Notes

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6.3 Proving Identities

6.4 Solving Trigonometric Equations Using Identities

Class Notes

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6.4 Solving Trogonometric Equations
Solving Equations Multiple Choice (Notebook File)

6. Trig Identities Review

Chapter 6 Review (Dave Kruisselbrink)