

# Trigonometric Identities

## Curriculum Expectations

By the end of this course, students will:

- recognize equivalent trigonometric expressions and verify equivalence
- explore the algebraic development of the compound angle formulas and use the formulas to determine exact values of trigonometric ratios
- recognize that trigonometric identities are equations that are true for every value in the domain, and prove trigonometric identities through the application of reasoning skills, using a variety of relationships
- solve linear and quadratic trigonometric equations, and solve related problems

## Schedule of Topics

Day	Topic	Reading	Homework	Questions?
1	Solving Equations Using Basic Identities	None	Worksheet	
2	Cofunction and “Shifting” Identities	§4.3	p.225 #1-14,21	
3	Compound Angle Formulae	§4.4	p.232 #1-11	
4	Double- and Half-Angle Formulae	None	Worksheet	
5	Extra Practice	None	Worksheet	
6, 7	Proving Trigonometric Identities	§4.5	p.240 #1-13, 15,16, Worksheet	
8	Unit Review	None	p.244 #10-23	

## Assessment and Evaluation

Quiz/Test/Task	Date	K	A	T	C

# Skills Checklist

At the end of this strand, I am able to:

- |                                                                       |            |           |            |
|-----------------------------------------------------------------------|------------|-----------|------------|
| • Solve trig. equations by applying Pythagorean/tangent identities    | [ ] Always | [ ] Often | [ ] Seldom |
| • Use co-function identities to simplify a trigonometric expression   | [ ] Always | [ ] Often | [ ] Seldom |
| • Use “shifting” identities to simplify a trigonometric expression    | [ ] Always | [ ] Often | [ ] Seldom |
| • Use compound angle identities to express trig. ratios in exact form | [ ] Always | [ ] Often | [ ] Seldom |
| • Use double angle identities to express trig. ratios in exact form   | [ ] Always | [ ] Often | [ ] Seldom |
| • Use half angle identities to express trig. ratios in exact form     | [ ] Always | [ ] Often | [ ] Seldom |
| • Prove that one trigonometric expression is equivalent to another    | [ ] Always | [ ] Often | [ ] Seldom |

<b>Student Comments</b>
<b>Parent/Guardian Comments</b>
<b>Teacher Comments</b>