

## Section 5.2 Verifying Trigonometric Identities

**Objective:** In this lesson you learned how to verify trigonometric identities.

Course Number

Instructor

Date

### I. Introduction (Page 384)

The key to verifying identities is . . .

***What you should learn***

How to understand the difference between conditional equations and identities

An identity is . . .

### II. Verifying Trigonometric Identities (Pages 384–388)

Complete the following list of guidelines for verifying trigonometric identities:

***What you should learn***

How to verify trigonometric identities

1)

2)

3)

4)

5)

**Example 1:** Describe a strategy for verifying the identity  $\sin q \tan q + \cos q = \sec q$ . Then verify the identity.

**Example 2:** Describe a strategy for verifying the identity  $\sin^2 x(\csc x - 1)(\csc x + 1) = 1 - \sin^2 x$ . Then verify the identity.

**Example 3:** Verify the identity  $\cot^5 a = \cot^3 a \csc^2 a - \cot^3 a$ .

**Additional notes**

### Homework Assignment

Page(s)

Exercises