**5.5 Proving Trigonometric Identities**

So far you know the following identities

**Example 1:** Prove the quotient identity

for all angles other than 90˚ and 270˚

Step 1: Work with complicated side first

Step 2: Switch to x,y, and r.

Step 3: Simplify

**Example 2:** Prove the Pythagorean identity for all

**Example 3**: Prove that , for all except for 0˚, 180 and 360˚