Trigonomentric Identity Tactics

This is a list of things to watch for when proving trigonometric identities.

These are in a recommended order to of application; everytime you apply a change to the identity, you should go back to the beginning of the list.

What to Look For and What to Do

1 ***Trig identities*** - are there any obvious trig identities?

2 ***Compound fractions*** - do you have a fraction whose numerator or denominator itself contains fractions?

- ▹ Combine the top or bottom fractions over a common denominator.

3 ***Factor*** - can anything be factored?

- ▹ Factor and then see if anything cancels.

4 ***2 Fractions*** - do you have two fractions?

- ▹ Combine them using a common denominator.

5 ***1 Fraction*** - do you have a single fractions?

- ▹ Cancel items using a common denominator.
- ▹ Multiply by a conjugate of the top or bottom
- ▹ Split into two fractions

6 ***When all else fails*** - do none of the above apply?

- ▹ Convert everything to sine and cosine.