**Mr. Bretsch**

Precalculus Section 5.2 *Verifying Trigonometric Identities*

Vocabulary: • “Verify”: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 • Identity: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 • Conditional Equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Examples:

7.) 21.)


# Guidelines for Verifying Trigonometric Identities

1. Work with one side of the equation at a time.

It is often better to work with the more complicated side first.

(It provides us with more opportunities to use the identities.)

2. Look for opportunities to factor an expression, add fractions,

square a binomial (FOIL), or create a monomial denominator.

3. Look for opportunities to use the fundamental identities. Note which functions are

in the final expression you want. (use some strategy here) Sines and cosines pair up

well, as do secants and tangents, and cosecants and cotangents. (In other words, know which functions can be easily converted into each other.)

 sin ↔ cos sec ↔ tan csc ↔ cot

4. If the preceding guidelines do not help, try converting all terms to sines and cosines.

5. Do not just sit there and stare at the problem. TRY SOMETHING !

Even paths that lead to dead ends give you insights.

Verify:

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