

**Material Covered**

- Sum and difference (of trig function) identities
- Double and half angle identities
- Product and sum (of angle) identities
- Graphing inverse trig functions
- Solving trig equations
- Laws of sines and cosines
- Polar Coordinates

**Textbook Reference**

- Chapter 3, sections 4, 5, and 6
- Chapter 4, sections 1, 2, and 4
- Chapter 5, sections 1 and 2.
- Chapter 6, section 3.

**Important Concepts**

- Applying identities to mathematical expressions
- Inverse trig functions
  - Relationship between a trig function and its inverse
    - Algebraically
    - Graphically
  - Graphing
- Solving triangles
- Graphing on the plane in rectangular and polar coordinates.

**Important Skills**

- Be able to simplify expressions and find values that may require any identity we've used without a calculator.
- Be able to graph an inverse trig function without a calculator.
- Be able to graph points and functions in polar coordinates without a calculator.
- Be able to solve trigonometric equations with a calculator.
- Be able to solve for missing pieces of a triangle with a calculator.
- Be able to set up applied problems and solve for the missing pieces with a calculator.

**Formula Sheet**

- One 3" × 5" formula sheet may be used
- One sided
- Formulas only, meaning in particular that the following are not allowed:
  - Graphs
  - Triangles, circles, or other shapes
  - Examples
  - Numbers other than the occasional "1" or "2" that appears in a formula