|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| |  | | --- | | **OBJECTIVES (Fundamental Identities, Section 5.1, Pages 396 – 405)** | | • Learn about the Reciprocal Identities, the Quotient Identities, the Pythagorean Identities, the Cofunction Identities, and the Odd-Even Identities. | | • Simplify Trigonometric Expressions. | | • Solve Trigonometric Equations. | | • Prove Trigonometric Identities. | |

**TUESDAY (2.18.25)**

**Quiz Review** for the *Solving Trigonometric Equations Quiz* to be taken on Thursday. You may use 2 sheets of paper, 8.5 by 11 inches, front and back, when you take this quiz. You may Not use your calculator.

**THURSDAY (2.20.25)**

**Quiz,** *Solving Trigonometric Equations Quiz.* You may use your 2 sheets of paper, 8.5 by 11 inches, front and back, when you take this quiz. You may Not use your calculator.

**Class Work/Homework:**

* **Read and take notes:** pages 479 - 483.

NEW **OBJECTIVES** (Polar Coordinates, Section 6.4, Pages 479 – 485)

|  |
| --- |
| * Identify the major parts of the polar coordinate system: the Pole, Polar Axis, and Polar points in the form (r, *θ*). |
| * Understand that the Polar point (*r, θ*) has the coordinate *r,* which is the distance from the Pole and the coordinate *θ,* whichis an angular measure, either in degrees or radians. |
| * Understand that *(x, y)* is a Rectangular (Cartesian) point. |
| * Plot points in the Polar coordinate system. |
| * Be able to convert from (*r, θ*) to *(x, y)* by using x = rcos *θ* and y = rsin *θ.* |
| * Be able to convert from *(x, y)* to *(r, θ)* by using r = ±√ (x2 + y2) and *θ* = tan-1(y/x). |
| * Graph and identify the Common Polar Curves. |
| * Use a TI84+ calculator to graph polar functions. |
| **The Polar Coordinate System** consists of a ray known as the Polar Axis and the endpoint of the ray, called the Pole. |

* **Refer to Example 3 on page 480 to do the following work:**

**Convert the points A, B, and C to their corresponding rectangular (Cartesian) coordinates.**

From circular trig, remember that cos *θ =* x/rand sin *θ =* y/r.

As a result, you will use x **= rcos *θ* and y = rsin *θ.***

**A: (r, θ) = (\_\_\_,\_\_\_\_); (x, y) = ( \_\_\_,\_\_\_\_)**

**B: (r, θ) = (\_\_\_,\_\_\_\_); (x, y) = ( \_\_\_,\_\_\_\_)**

**C: (r, θ) = (\_\_\_,\_\_\_\_); (x, y) = ( \_\_\_,\_\_\_\_)**

Chart, radar chart

Description automatically generated

* **Page 484 (#1 – 4)**

**FRIDAY (2.21.25) A-Day, No Class**

**The Polar Plane and the Rectangular Plane**

