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| **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.
 |
| * Convert a polar equation to rectangular form.
 |
| * Convert a rectangular equation to polar form.
 |
| * Find the distance between 2 polar coordinates by using The Law of Cosines.
 |
| **The Polar Coordinate System** consists of a ray known as the Polar Axis and the endpoint of the ray, called the Pole. |

**TUESDAY (3.11.25)**

**Homework Check and Discussion of Equation Conversion of Polar Equations to Rectangular Equations→** Page 484: #35 – 41, odds.

**Class Work:** Page 484, #36 – 42, evens.

**Discuss Example 6 on page 482 (Converting form Rectangular Form to Polar Form).**

**Homework:** Page 484, #43 – 49, odds.

**THURSDAY (3.13.25)**

**Homework Check and Discussion of the previously assigned homework:** Page 484, #43 – 49, odds.

**Discuss Example 7 on page 483 (Finding Distance Using Polar Coordinates).**

**Class Work/Homework:** Page 484, #44 – 48, evens; 51, 52.

**FRIDAY (3.14.25) A-DAY, NO CLASS**

**TUESDAY (3.25.25)**

**Discussion of the previously assigned classwork/homework:** Page 484, #44 – 48, evens; 51, 52.

**Homework: Review of Rectangular ↔ Polar Conversions (To be received in class).**