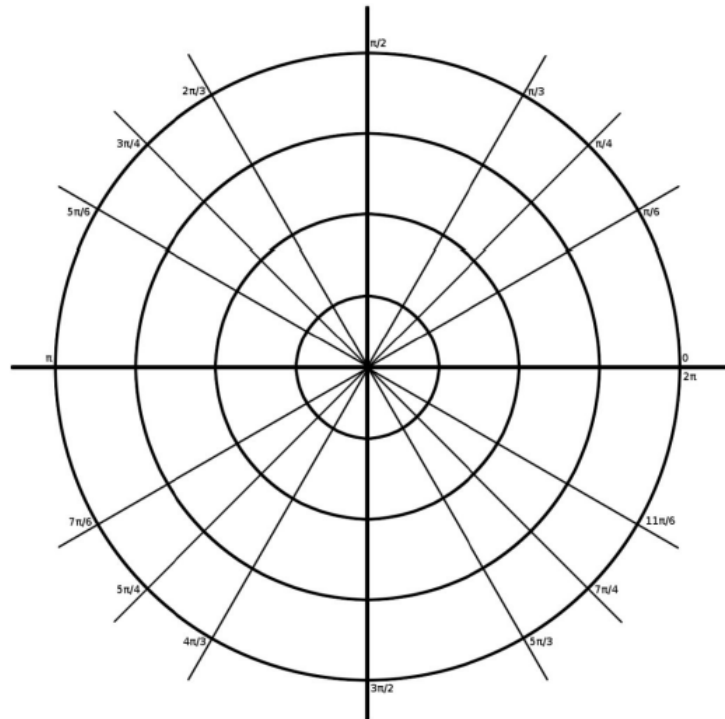


Sketch the graph of each polar equation. Use symmetry to assist with obtaining the coordinates.

Example 1: _____ **Symmetry**

$r = 4\cos 2\theta$

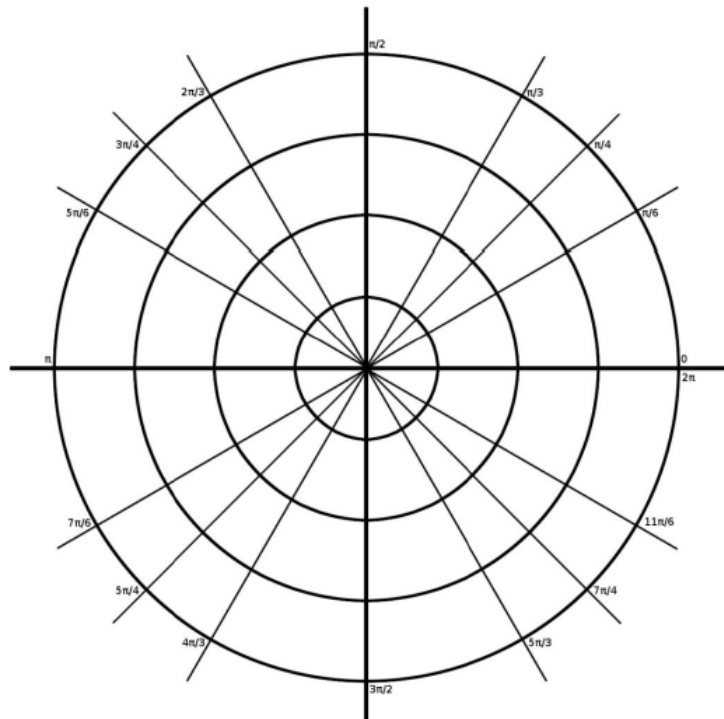


This is a _____

The general formula is _____

Example 2: _____ **Symmetry**

$r = 3\sin 3\theta$

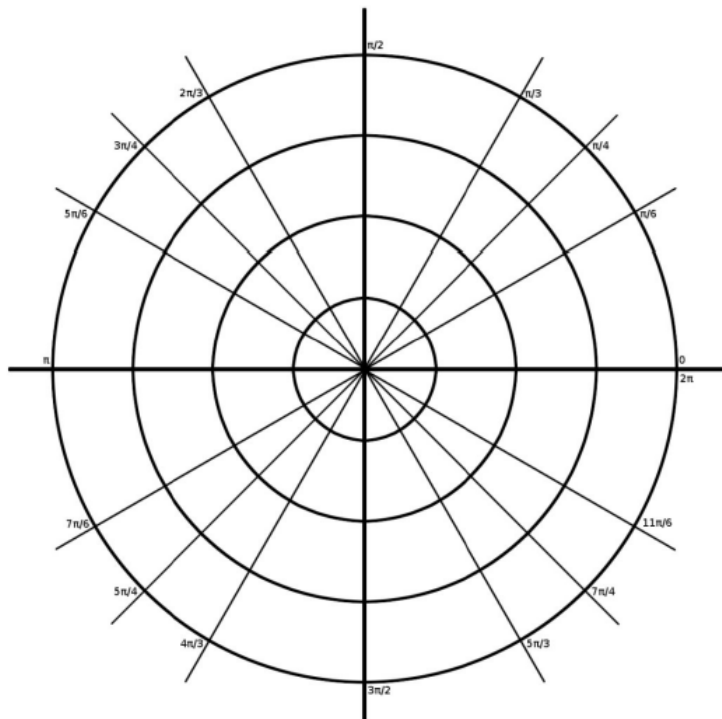


This is a _____

The general formula is _____

Example 3: _____ **Symmetry**

$$r^2 = 4\cos 2\theta.$$



This is a _____

The general formula is _____

Homework: Page 789 #39-44 all, 47 and 48 (8 graphs)