Quiz 3.1

7. Plot the function $r = 10 \cos(3 \theta)$ for $0 \leq \theta \leq 2\pi$ in steps of $0.01\pi$ using a polar plot.

3.7 Exercises.

3.5 Create a polar plot of the function $r(\theta) = \sin(2\theta) \cos(\theta)$ for $0 \leq \theta \leq 2\pi$.

3.14 The Spiral of Archimedes. The spiral of Archimedes is a curve described in polar coordinates by the equation

$$r = k \theta$$

where $r$ is the distance of a point from the origin and $\theta$ is the angle of that point in radians with respect to the origin. Plot the spiral of Archimedes for $0 \leq \theta \leq 6\pi$ when $k = 0.5$. Be sure to label your plot properly.