<< Graphics`Graphics`

r[p_, ε_, θ_, γ_] = $\dfrac{\mathbf{p}}{\mathbf{1 + ε\ Cos[γ\ θ]}}$;

constants1 = {p → 1, ε → .5, γ → 5 / 2};

r1 = r[p, ε, θ, γ] /. constants1;

PolarPlot[r1, {θ, 0, 64 π}, ImageSize → 198]
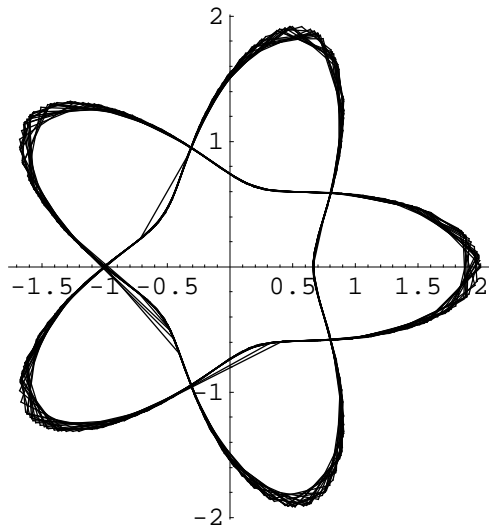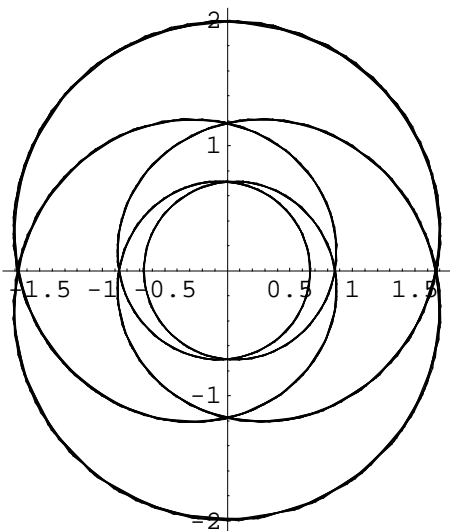

- Graphics -

constants2 = {p → 1, ε → .5, γ → 2 / 5};

r2 = r[p, ε, θ, γ] /. constants2;
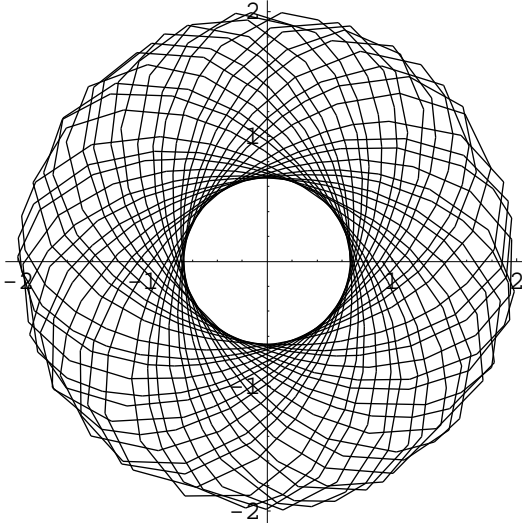
PolarPlot[r2, {θ, 0, 64 π}, ImageSize → 198]

- Graphics -

constants3 = {p → 1, ε → .5, γ → GoldenRatio};

r3 = r[p, ε, θ, γ] /. constants3;

PolarPlot[r3, {θ, 0, 64 π}, ImageSize → 198]

- Graphics -