

Problem4B

November 17, 2016

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In [3]: using Plots, ODE;

In [1]: function love(t,f)
           (x, y) = f
           dx_dt = -0.2*y
           dy_dt = 0.8*x -0.1*y

           [dx_dt; dy_dt]
       end;

In [5]: start = [2.0; 0.0]
        ts = [0.0; 60.0];

In [6]: t, res = ode45(love, start, ts)

        r = map(x -> x[1], res)
        j = map(x -> x[2], res);

In [9]: plot(t, r, label="Romeo")
        plot!(t, j, label="Juliet")
        xlabel!("t")

In [10]: plot(r,j)

In [11]: plot(r,j,t)

In [ ]:
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