- 1. There are equilibrium points at (0,0), $(\sqrt{2}, -\sqrt{2})$ and $(-\sqrt{2}, \sqrt{2})$.
- 2. There are three equilibrium points. Note the difference the change in stepsize makes with Runge-Kutta 4th order.
- 3. Left one is (a), right one is (b).
- 4. Note that $\frac{dy}{dx} = y/(2x)$. You should sketch the field by hand. But to make it easy for myself I've done it using dfield.

