

## Homework 6

Section 11.4

Due: 4-24-14

1. Solve the initial value problem

$$\frac{dy}{dx} = \frac{x+1}{2y}, \quad y(0) = 1.$$

2. Find the general solution to the differential equation

$$\frac{dy}{dx} = \frac{x\sqrt{x^2+1}}{\cos y}.$$

3. Find the general solution to the differential equation

$$\frac{dy}{dx} + y + \frac{1}{y} = 0.$$