Name _____

Homework 22
section 11.4

1. (5) Find the particular solution to the differential equation $1 + y^2 - \frac{dy}{dx} = 0$, which passes through the point $(\frac{\pi}{3}, 1)$.

2. (5) Find the general solution to $\dfrac{dy}{dx} = \dfrac{e^{2x-y}}{e^{x+2y}}$.

3. (5) Find the general solution to $y' = x - 1 + xy - y$.

4. (5) Find the solution to $\frac{dz}{dy} = 2zy$, which satisfies the condition the $z = 1$ when $y = 1$.