

Name _____

Homework 19
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 $(e^{x+3y}) \frac{dy}{dx} = e^{2x-y}$.

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 $y = 1$.