

MIDTERM I (Make Up)

Math 3350

Solve the following Differential Equations:

1. $\frac{dy}{dx} = \frac{\sec^2 x}{1+x^2}$.

2. $\frac{dy}{dx} = \frac{x(1-y)}{1+x^2}$

3. $\frac{dy}{dx} = \frac{3x^2 + y}{x - x^2 y}$

4. $\frac{dr}{d\theta} = \frac{r^2 + 2r\theta}{\theta^2}$ (Bernoulli's Equation)