

MthU343

Northeastern University

DiffEQs & Linear Alg. for Engineering

20 Minutes

Professor Gilmore

July 5, 2007

Quiz #1

Name: _____.

Show All Your Work

1. Solve the initial value problem: $3x^2(y^2 + 1) = y'$ with $y(0) = 1$.

2. Solve the following initial value problem, for $y = f(x)$:

$$x \cdot \frac{dy}{dx} + 3y = 2x^5 \text{ with } y(2) = 1.$$

Please Turn Over and Continue Working

3. Solve the following ordinary differential equation for $y = f(x)$:

$$xy^2y' = x^3 + y^3$$

Name: _____.