

Practice Quiz 2 MATH 2280, ORDINARY DIFFERENTIAL EQUATIONS, FALL 2023

NAME:

A#:

Problem 1. Section 2.2g (10 points) Determine if the following differential equation is or is not directly integrable.

$$x^2 \frac{d^2 y}{dx^2} = 1$$

Solution:

Problem 2. Section 2.4c (10 points) Solve the following initial value problem (using the indefinite integral). Also, state the largest interval over which the solution is valid (i.e., the maximum possible interval of interest).

$$\frac{dy}{dx} = \frac{x-1}{1+x}$$

with $y(0) = 8$.

Solution: