Quiz 3

MATH 2280, ORDINARY DIFFERENTIAL EQUATIONS, SPRING 2024

NAME: A#:

Problem 1. Exercise 4.5b (10 points) Using the basic procedure, find the solution to the following initial-value problems.

$$\frac{dy}{dx} = 2\ x - 1 + 2\ x\ y\ \ - y$$

with $y(0) = 2$.

Solution:

Problem 2. Exercise 4.8b (10 points) Solve the following initial-value problem. If possible, express each solution as an explicit expression.

$$y\,\frac{dy}{dx} = \sin(x)$$

with $y(0) = -4$.

Solution: