Quiz 2

MATH 2280, ORDINARY DIFFERENTIAL EQUATIONS, SPRING 2024

NAME: A#:

Problem 1. Exercise 2.3i (10 points) Find a general solution for the following directly integrable equation. (Use indefinite instegrals).

$$1 = x^2 - 9\,\frac{dy}{dx}$$

Solution:

Problem 2. Exercise 2.7d (10 points) Using definite integrals (as in Example 2.5 on page 25) find the solution of the following iitial-value problem. (In some cases, you may want to use the error function or the sine-integral function.)

$$\frac{dy}{dx} = e^{-9x^2}$$

with $y(0) = 1$.

Solution: