MATH 3503 - Winter 2025
Quiz 1

January 28, 2025

1. Which of the following are homogeneous? (3 Marks)

    (a) $y' + xy = 12$

    (b) $\frac{dy}{dx} = 12y$

    (c) $y' - 12 = 0$

    Ans:

2. Solve the equation $y' = 2xy$ (3 Marks)

    Ans:

3. Solve the Bernoulli equation $y' + 2y = 2xy^3$. You will end up with a linear equation that requires an integrating factor as part of the solution. (4 Marks)

Ans: