Practice Quiz 10

MATH 2280, ORDINARY DIFFERENTIAL EQUATIONS, FALL 2023

NAME: A#:

Problem 1. 26.3 Let α be any real number and show that

$$\mathcal{L}[e^{at}] \mid_s = \frac{1}{s-\alpha}, \qquad \alpha < s$$

Solution:

Problem 2. Ex. 26.8.e (10 points) Verify the following Laplace transform using integration.

$$f(t) = sinh(4t)$$

Hint: Use the definition of $sinh(4t)$ in terms of natural exponential functions.

Solution: