

Practice Quiz 11

2023

MATH 2280, ORDINARY DIFFERENTIAL EQUATIONS, FALL

NAME:

A#:

Problem 1. 27.1.g Find the Laplace transform, $Y(s)$, of the solution of the following initial value problem. Just find $Y(s)$ using ideas illustrated in Examples 27.1 and 27.2. Do NOT solve the problem using methods developed before we started discussing Laplace transforms! Also, do not attempt to recover $y(t)$ from $Y(s)$.

$$y'' + 4y = 3 \operatorname{step}_2(t),$$

with $y(0) = 0$, and $y'(0) = 5$.

Solution:

Problem 2. Ex. 28.4.a (10 points) Solve the following initial value problem using the Laplace Transform.

$$y' + 9y = 0$$

with $y(0) = 4$.

Solution: