

Math 240 - Quiz 9

November 16, 2023

Name _____

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (5 points) Find the inverse Laplace transform of each function.

(a) $F(s) = \frac{3s + 5}{s^2 + 9}$

(b) $F(s) = \frac{1}{s(s - 1)(s + 3)}$

2. (5 points) Use Laplace transforms to solve the IVP.

$$x'' + 16x = \cos 4t, \quad x(0) = 0, \quad x'(0) = 1$$