

Math 240 - Quiz 10

April 20, 2023

Name _____

Score _____

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

1. (3.5 points) Find the partial fraction decomposition of $Y(s) = \frac{4}{(s-1)(s+1)}$. Then find the inverse Laplace transform of $Y(s)$.

2. (3 points) Use Laplace transforms to solve $y' = y - 4e^{-t}$, $y(0) = 1$.

3. (3.5 points) Find the inverse Laplace transform of $Y(s) = \frac{s-3}{s^2+6s+10}$.