

QUIZ 6 - MATH 310

Thursday, April 4

YOUR NAME: _____

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Read each problem **very carefully** before starting to solve it and do only what is asked. Each problem is worth around 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. [6 points] Let $f(t) = d_5(t - 7)$.

(a) Sketch the graph of $y = f(t)$.

(b) Compute from scratch $\mathcal{L}\{f\}$.

2. [6 points] Use Laplace transforms to solve the initial value problem

$$y'' - 4\pi^2 y = \delta(t - 2), \quad y(0) = 0, \quad y'(0) = 1.$$