

QUIZ 2 - MATH 310

Thursday, September 5

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] Solve the initial value problem

$$t \frac{dy}{dt} + 2y = 10t^2, \quad y(1) = 3.$$

2. [6 points] Solve the initial value problem

$$\frac{dy}{dx} = \frac{(y^2 + 1)(x^2 + 2x)}{4y}, \quad y(3) = 0.$$

(You may leave your answers in implicit form.)