

MA 262 Section 596/597: Quiz 3

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Problem 1. Write your name and section number on a full sized blank piece of paper.

Problem 2. Find the general solution to the differential equation

$$x^2 y' = xy + 2y^2.$$

Express the general solution in the form $y(x) =$.

Problem 3. Given the differential equation

$$(6x + 9y)dx + (9x + 6y)dy = 0.$$

- (a) Verify that the equation is exact.
- (b) Find the general solution in the form $F(x, y) = c$ for some constant c .