MA 262 Section 596/597 Quiz 2

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

Problem 2. Find the general solution of the form $y(x)$ to the differential equation

$$\frac{dy}{dx} = 20\sqrt{xy}.$$

Assume x and y are positive.

Problem 3. Find the general solution to the differential equation, then use the initial conditions to find the corresponding particular solution.

$$xy' - y = x, \quad y(1) = 21.$$

Assume $x > 0$.