

MATH 202 QUIZ 1

Name \_\_\_\_\_, id# \_\_\_\_\_, Serial # \_\_\_\_\_

Q1:  $y = \frac{1}{x^2+c}$  a solution of the IVP  $y' + 2xy^2 = 0$ . Find a solution with initial condition  $y(0) = 1$  and give the largest interval of definition of the solution.

Q2: Find the general solution of  $\frac{dy}{dx} - \frac{y}{x} = x \sin x$