

**MATH 385-X1**  
**DIFFERENTIAL EQUATIONS:**  
**QUIZ 1**

FALL, 2004

(2)  $y' = y \cos x$ ,  $y(0) = 1$  [4pts]

**Print your name.**

Name : \_\_\_\_\_

**Show all your work for full credit.**

Find general solutions of the following differential equations. If an initial conditions is given, find the corresponding particular solution.

(1)  $\frac{dy}{dx} = \frac{1}{x - x^2}$  [2pts]

(3)  $xy' = 2x^2 - 2xy$  [4pts]