<u>QUIZ♯1 Math202, sec 11</u>
<u>Net Time Allowed: 25 minutes</u>

Name: **ID** ♯ :   **Serial:**

<u>**Exercise1:**</u>
Verify that $e^y = y - x^2 + C$ is an implicit solution of the differential equation:

$$\frac{dy}{dx} = \frac{2x}{1 - e^y}$$

solution:

<u>**Exercise2:**</u>
Determine the region on which the differential equation:

$$y' = \frac{\sqrt{y^2 - 1}}{x}$$

has a unique solution through the point $(1, -2)$.
solution: