

1. Use of cell phones is NOT allowed.
2. Answers without supporting work will NOT be given credit.
3. You have **15 minutes** to complete this quiz.

Name:

Serial:

1. Determine whether the following IVP has a **unique** solution or not

$$\frac{dy}{dx} = \sqrt{y^2 - 9}$$

$$y(5) = 3$$

2. Solve the following differential equations:

(a) $x^2 \frac{dy}{dx} = -(x^2 + 2x)y + e^x$

(b) $(xy - 2x + 4y - 8) \frac{dy}{dx} = xy + 3x - y - 3$

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The End.