

DIRECTIONS To receive full credit, you must provide complete legible solutions to the following problems in the space provided. Transfer all your answers to the space provided

1. Solve the given differential equation by using an appropriate substitution.

$$xdx + (y - 2x)dy = 0$$

Ans _____

2. Solve the given differential equation by using an appropriate substitution.

$$(y^2 + yx)dx - x^2dy = 0$$

Ans _____

3. Solve the given differential equation by using an appropriate substitution.

$$y' = y(xy^4 - 1)$$

Ans _____

4. Solve the given differential equation by using an appropriate substitution.

$$y' = \tan^2(x + y)$$

Ans _____