

Differential Equations – Day 5 In Class

Professor:

Dr. Joanna Bieri

joanna_bieri@redlands.edu

For each of the following problems:

1. Is the equation linear or non-linear?
2. Say what solution method you are using and why.
3. Find the general solution.

GROUP 1

$$y' = \sqrt{x + y + 1}$$

GROUP 2

$$xyy' = y^2 + x\sqrt{4x^2 + y^2}$$

GROUP 3

$$(x + y)y' = 1$$

GROUP 4

$$xy' + xy = 4x^4$$