

Differential Equations – Advanced Problem Set 2

Professor:

Dr. Joanna Bieri

joanna_bieri@redlands.edu

Directions: Do the following book problems

Section 1.6: 30, 63, 64

Section 2.1: 22

Other Notes:

1. One number 30, sometimes you have to do more than one substitution! Try $v = e^y$.
2. On number 63 they are teaching you a new substitution method where $y = y_1 + \frac{1}{v}$ and y_1 is a solution, but just a part of the solution. In 63 you verify the method... plug in the given substitution and see what happens. In 65 you will use this method with $y_1 = x$ to solve a Riccati ODE.