

Math 3280 Worksheet 42: Linearizing nonlinear systems

Group members (2 to 4): \_\_\_\_\_

(1) Find the equilibria of the system  $x' = xy/2 - 4$ ,  $y' = x - 2y$ .

(2) Find the eigenvalues of the linearized system at each equilibria. Determine whether each equilibrium is stable or unstable.