Name:

Given the differential equation
$$y' = (y-1)(y-2)(y-4)^2.$$

a) Find the (constant) equilibrium solutions and classify each of them as asymptotically stable, unstable, or semistable.

b) Sketch the equilibrium solutions and also the two solutions y_1 and y_2 which satisfy the initial condition $y_1(0) = 3$ and $y_2(0) = 1.5$. You may put all five curves into one graph and neglect concavity.

Answer:

Sign the pledge: "On my honor, I have neither given nor received unauthorized aid on this Exam."

Signature: