MVE290 GOALS FOR 2020.01.22 SPECIAL K. 2

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1. LEARNING OBJECTIVES

Our specific goals for today are:
(1) You will be able to turn a system of first order constant coefficient homogeneous ODEs into matrix-vector form.
(2) You will be able to turn a higher order constant coefficient homogeneous ODE into a first order system in matrix-vector form.
(3) You will be able to use a computer to find the eigenvalues of the matrix.
(4) You will be able to use the results of the computer to determine whether or not the system has a solution depending on the initial condition.
(5) If we have enough time, you will be able to use the Laplace transform to change derivatives into multiplication.