MATH 226

Differential Equations

Assignment 7

Due Friday, March 11

Read Section 3.2: "Systems of Two First Order Linear Differential Equations" and explore the tools *Maple* provides to carry out various Linear Algebra calculations by looking at an *Overview of the LinearAlgebra Package* which is available at https://www.maplesoft.com/support/help/Maple/view.aspx?path=LinearAlgebra

Overview of the LinearAlgebra Package Basic Functionality Examples Interfaces to the LinearAlgebra Package Details Essential LinearAlgebra Package Commands **Basic Functionality** Description $\bullet \ \, \text{The } \underline{\textbf{LinearAlgebra}} \ \, \text{package offers routines to construct and manipulate Matrices and Vectors,} \\$ compute standard operations, query results and solve linear algebra problems. • For a complete list of the routines in the LinearAlgebra package, see the Details of the Linear Algebra Package help page. Output • Matrix, Vector, or an expression sequence of the two. Matrices 10 x 10 or smaller and vectors 10 x 1 and smaller display the corresponding Matrix or Vector in the Maple worksheet. Matrices and vectors larger then this display a placeholder as output. To see the entries or structured views of the Matrix or Vector, double-click the placeholder. For more details, see the browse Matrix help page. Interfaces to the LinearAlgebra Package

Project One

Complete and submit your work on Project One, including self and group assessments.