Part I (due Monday, January 22 at the beginning of class)

Read Section 1.4 in *Understanding Linear Algebra*. Some of this will be review; focus on the new-to-you things.

Reading Question(s)

1. Preview Activity 1.4.1
2. Activity 1.4.2

Note: you can ask questions about things we've done in class as part of your part (b) for Part I as well as about the reading.

Part II (due Wednesday, January 24 by the beginning of class)

This will be posted on WeBWorK by Friday evening.

- Go to `webwork.houghton.edu/webwork2` and click on

  `LinearAlgebra_Yates_S2024`

- Log in to your account: your username is the last five digits of your student ID number, and this is also your current password. (If you're not sure what this number is, feel free to email me and I'll get back to you as quickly as)
- Once you have logged in, click on "User Settings" in the Main Menu on the left side of your screen and change your password.
- Click on "Homework Sets" in the Main Menu and open "DW 5."
- Do the problems in the assignment.

Part III: Homework (due Wednesday, January 24 at the beginning of class)

1. Consider the system

$$\begin{aligned} x - 2y + z &= -1 \\ 2y - 4z &= 6 \\ hy - 2z &= 1. \end{aligned}$$

   (a) Write the augmented matrix associated with this system and then reduce it to reduced row echelon form (show all your work).

   (b) For which values of h does the system have no solutions? Exactly one solution? Infinitely many solutions? Find the solutions in each case.

Running list of vocabulary words that could be a quiz word

- linear equation
- system of linear equations
- linear combination of a set of vectors
- span of a set of vectors
- linearly independent
- linearly dependent
- reduced row echelon form
- pivot
- homogeneous system
- free variable
- row equivalent