Reading Assignment 6

Read Sect. 2.2 and 2.3

1. What is the objective of Section 2.2?
2. What is the difference between a basis and an ordered basis?
3. what does a "coordinate vector of x relative to β" mean?
4. Define the matrix representation of a linear transformation T. Give an example.
5. Is $\mathcal{L}(V, W)$ a vector space? Explain your answer.
6. What does the symbol $[T]_\beta^\gamma$ mean?
7. What is the objective of section 2.3?
8. What is the definition of composition of linear transformations and how does it relate to matrix multiplication?
9. What can you conclude if T and U are linear and it is possible to define the composition UT?
10. Define matrix multiplication and give an example.
11. Define the identity matrix. Give an example.
12. What does Theorem 2.14 say?
13. Define the left multiplication trasformation and give an example.
14. List the properties of L_A and give examples to illustrate the properties.

Practice Problems:

Sect. 2.2 # 1, 2, 5

Sect. 2.3 # 1, 2, 4, 9