Coordinate Systems Part II

MATH 204: Linear Algebra
Prepare for class November 26, 2018   Name (Print): _____

After reading Section 4.4, work through the following ideas.

1. Define the change-of-coordinates matrix. Include what you are changing from and to.

2. There are two ways to use the change-of-coordinates matrix to find the $\mathcal{B}$-coordinate vector of $\vec{x}$. What are they?

3. Try Exercise 11 in Section 4.4, page 225.

4. State Theorem 4.8: The Coordinate Mapping Theorem.

5. What is an isomorphism?

6. Given the definition of isomorphism, what is another way we could word the Coordinate Mapping Theorem?

7. Carefully read Example 5 and the paragraph afterwards. Isn't this neat?! What does this illustrate? Example 6 further illustrates how these ideas can be useful!

8. Write down any questions you have on the reading.