

The Characteristic Equation and Diagonalization

MATH 204: Linear Algebra

Prepare for class December 7, 2018

Name (Print): _____

After reading Sections 5.2 and 5.3, work through the following ideas. The first three questions are about Section 5.2 and the rest about 5.3.

1. Write the definition of what it means for matrix A to be similar to matrix B .

2. State Theorem 5.4.

3. What are the warnings on page 279?

4. If $B = \begin{bmatrix} 2 & 0 \\ 0 & 4 \end{bmatrix}$, what is B^2 ? B^3 ? B^k ?

5. What is the definition of diagonalizable?

6. State the Diagonalization Theorem (Theorem 5.5).

7. Try Section 5.3 Exercise 7 on page 289.

8. State Theorem 5.6.

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