Ausgewählte Kapital der Mathematik 2   **Özgür Esentepe**

Sommersemester 2025 Homework 4

1. Questions

(1) What did you learn in class this week? What was one interesting thing? What did you find most difficult? How is it going?

(2) Construct a symmetric integer matrix with real, non-rational eigenvalues. You should solve this question in 3 parts.
  - (a) In the first part, just write the matrix down.
  - (b) In the second part, explain how you came up with the matrix. Did you do trial and error? If so, what did you try first and how did you fix it? Or did you follow a more theoretical approach?
  - (c) In the last part, explain how this question in related to what you have learned in class.