Homework 2

MATH 231

Due Wednesday, September 17, 2025

Instructions. *We will also have a quiz in class on the due date based on the content from the assignment. See the back of the textbook for solutions and hints for odd-numbered problems.*

Exercise 1. Complete the following exercises from Section 1.2 in the course textbook:

7, 9, 11, 13, 15, 17, 19, 20, 21, 22, 35, 36, 45

Exercise 2. Complete the following exercises from Section 1.3 in the course textbook:

1,3, 5, 9, 11, 13, 15, 17, 18, 27, 28, 29, 30, 31, 32

Exercise 3. Complete the following exercises from Section 1.4 in the course textbook:

1, 3, 7, 9, 11, 13, 14, 15,

Exercise 4. Let $\mathbf{v} \in \mathbb{R}^n$. Give an argument for the fact that if $\mathbf{v} \cdot \mathbf{v} = 0$, then $\mathbf{v} = 0$. (I discussed this quickly in class.)