

# Homework 10

MATH 301

Due Wednesday, May 3, 2023.

---

**Instructions.** Read the [Homework Guide](#) to make sure you understand how to successfully complete the assignment. All claims must be sufficiently justified.

**Exercise 1.** Construct an injective homomorphism from  $D_3$  to  $GL(3, \mathbb{R})$ .

**Exercise 2.** Complete the following exercises from [Section 9.4](#):

# 11, 12, 16, 17, 19 (just the first part, and see Example 9.25), 22, 24, 25, 48