

## MATH 8530 - Fall 2015

### Homework 3

Due: Oct. 15 (Thursday)

#### Question 1.

Solve Exercise 3 of Chapter 4 of Lax.

#### Question 2.

Solve Exercise 3 of Chapter 5 of Lax.

#### Question 3.

Solve Exercise 5 of Chapter 5 of Lax.

#### Question 4.

Let  $A \in \mathbb{F}^{n \times n}$ .

1. Prove that  $\det(A^T) = \det(A)$ .
2. If  $A$  antisymmetric and  $n$  is odd, prove that  $\det(A) = 0$ .