

Homework 4

Due: Monday, September 15

Book Problems: Section 3.1 # 14, 16  
Section 3.2 # 1, 3, 8, 10, 15, 26c, 30

For problem 1 from 3.2, you may use any of the methods discussed in class to compute these determinants.

Additional Problem:

$$A = \begin{bmatrix} 1 & 2 & 0 & 1 \\ 0 & 1 & 2 & 0 \\ -2 & 0 & 2 & -3 \\ 0 & 0 & 1 & 3 \end{bmatrix}$$

Compute  $\det(A)$  three different ways:

- (1) using the definition of determinant
- (2) using reduction to triangular form
- (3) using cofactor expansion

Which method do you prefer?