NAME: PeopleSoft ID:

MATH 2331 - Linear Algebra - Spring 2018
V.Yushutin
Homework 7 - due Monday 03/19

Instructions:

• Print out this page as a cover one.

• Write your name and PSID in the spaces provided above.

• Your homework must be complete, neatly written, and stapled.

• Use a pen or a dark pencil.

• For the MATLAB exercises, send the scripts to yushutin@math.uh.edu. For homework n, write “lastname, firstname - homework n” as the subject of your email. Call “lastname_hwn_1” the script generated for exercise 1, “lastname_hwn_2” the script generated for exercise 2 and so on, where lastname is your last name.

Exercises from the book:

- Section 3.2: exercises 4, 18, 27, 28, 36.

MATLAB exercises:
Create a script for the following exercises:

1. Generate two matrices $A$ and $B$ of size $n \times n$, with $n = 2, 4, 5, 6, 7$, with entries that are random integers from 0 to 9. Check if $\det(A + B) = \det(A) + \det(B)$ and comment on the results. An easy way to do this is to compute $\det(A + B) - \det(A) - \det(B)$ and check if it is zero.

   Hint: use format long to display 15 digits.