

Linear Algebra, EE 10810/EECS 205004

Quiz 4.2 – 4.4

Student ID:; Your Name:
(Dated: November 25th, 2020)

Integrity: There is NO space to cross the **Red Line** !!

1. Use row operations to simplify and compute the following determinant.

$$\det \begin{bmatrix} 101 & 201 & 301 \\ 102 & 202 & 302 \\ 103 & 203 & 303 \end{bmatrix}, \quad (1)$$

2. Find the determinant of the symmetric Pascal matrices

(a)

$$\det \begin{bmatrix} 1 & 1 & 1 & 1 \\ 1 & 2 & 3 & 4 \\ 1 & 3 & 6 & 10 \\ 1 & 4 & 10 & 20 \end{bmatrix}, \quad (2)$$

(b)

$$\det \begin{bmatrix} 1 & 1 & 1 & 1 \\ 1 & 2 & 3 & 4 \\ 1 & 3 & 6 & 10 \\ 1 & 4 & 10 & \mathbf{19} \end{bmatrix}. \quad (3)$$