Math 265 Quiz # 1	Spring 97–Sec. 01 Dr. Alberto Corso	Name: _____ _____	Please, be neat and show all your work; circle your answer.

1. Find all the solutions, if any, of the linear system of equations $A\mathbf{X} = \mathbf{b}$ if

$$A = \begin{pmatrix} 0 & 1 & 2 \\ 1 & 1 & 1 \\ 1 & 2 & 3 \end{pmatrix} \qquad \mathbf{X} = \begin{pmatrix} x \\ y \\ z \end{pmatrix} \qquad \mathbf{b} = \begin{pmatrix} -1 \\ 2 \\ 1 \end{pmatrix}$$

grade: /5

2. Let A and B be the following 3×3 matrices

$$A = \begin{pmatrix} 1 & 2 & 3 \\ 1 & 2 & 3 \\ 1 & 2 & 3 \end{pmatrix} \qquad B = \begin{pmatrix} 1 & 2 & 3 \\ 0 & 4 & 5 \\ 0 & 0 & 6 \end{pmatrix}$$

Compute $\det(A)$, $\det(B)$, and $\det(AB)$.

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