1. The choices for problem number 6 from the book are given below.
   a. Row Reduced
   b. Not Row Reduced

2. The choices for problem number 8 from the book are given below.
   a. Row Reduced
   b. Not Row Reduced

3. The choices for problem number 12 from the book are given below.
   a. Row Reduced
   b. Not Row Reduced

Use the following matrices for questions 4-6.

\[ A = \begin{pmatrix} 1 & 0 & 2 \\ 0 & 1 & 0 \\ 0 & 0 & 0 \end{pmatrix}, \quad B = \begin{pmatrix} 1 & 1 & 0 & -5 \\ 0 & 0 & 1 & 3 \end{pmatrix}, \]

\[ C = \begin{pmatrix} 1 & 0 & 3 \\ 0 & 1 & -2 \\ 0 & 0 & 1 \end{pmatrix}, \quad D = \begin{pmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 3 \\ 0 & 0 & 1 & -7 \end{pmatrix} \]

4. State the number of solutions for Matrix A.
   a. No Solution
   b. One Solution
   c. Infinitely Many Solutions

5. State the number of solutions for Matrix B.
   a. No Solution
   b. One Solution
   c. Infinitely Many Solutions

6. State the number of solutions for Matrix D.
   a. No Solution
   b. One Solution
   c. Infinitely Many Solutions

7. Solve the following system of linear equations using the Gauss-Jordan elimination method for the variable x.

\[ \begin{align*}
3x + 6y &= 0 \\
-6x - 10y &= 4
\end{align*} \]

   a. No Solution
   b. \( x = -4 \)
   c. \( x = -3 \)
   d. \( x = 3 \)
e. \( x = -2 \)

8. Solve the following system of linear equations using the Gauss-Jordan elimination method for the variable \( y \)

\[
\begin{align*}
2x + y - 2z &= 2 \\
x - y + 3z &= 0 \\
10x + 5y - 10z &= 10
\end{align*}
\]

a. No Solution 

b. \( y = 2/3 \)

c. \( y = \frac{2}{3} + \frac{8}{3} z \), where \( z \) is any real number 

d. \( y = \frac{2}{3} - \frac{1}{3} z \), where \( z \) is any real number 

e. \( y = 2z \), where \( z \) is any real number

9. Solve the following system of linear equations using the Gauss-Jordan elimination method for the variable \( x \).

\[
\begin{align*}
-x + y &= -1 \\
3x - 2y &= 0 \\
2x - y &= 4
\end{align*}
\]

a. No Solution 

b. \( x = -2 \)

c. \( x = 3 \)

d. \( x = y \), where \( y \) is any real number 

e. \( x = 2 \)

10. Solve the following system of linear equations using the Gauss-Jordan elimination method for the variable \( x \).

\[
\begin{align*}
x - 4y - z &= 1 \\
2x - 7y - z &= 1 \\
-x + 5y + 3z &= -1
\end{align*}
\]

a. \( x = -6 \)

b. \( x = -2 \)

c. \( x = 2 \)

d. \( x = 1 \)

e. No Solution