Math 1553, Quiz 2 (1.1–1.3), Fall 2026, Version A

Name		**GT ID**		**Section**	

For questions with bubbles, either fill in the bubble completely or leave it blank. **Do not** mark any bubble with "X" or "/" or any such intermediate marking. Anything other than a blank or filled bubble will be given a score of zero.

1. (1 point) If an augmented matrix in RREF has a pivot in every column, then its corresponding system of linear equations must be inconsistent.

   ◯ True

   ◯ False

2. (0.5 points each) Which of the following matrices are in RREF? Fill in the bubble for all that apply.

   ◯ $\left(\begin{array}{ccc|c} 1 & 2 & 0 & 2 \\ 0 & 0 & 0 & 0 \\ 0 & 0 & 1 & 2 \end{array}\right)$

   ◯ $\left(\begin{array}{cccc|c} 1 & -3 & -5 & 0 & 1 \\ 0 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 0 \end{array}\right)$

3. (1 point) Suppose that the solution set to a system of linear equations with augmented matrix $[A \mid b]$ has parametric equation form

$$x_1 = 2 + x_3, \qquad x_2 = 3 - x_3, \qquad x_3 = x_3 \ (x_3 \text{ real}), \qquad x_4 = 5.$$

   Which **one** of the following statements **must** be true? Fill in the bubble for the correct answer.

   ◯ The vector $\begin{pmatrix} 2 \\ 3 \\ 0 \\ 5 \end{pmatrix}$ is a solution to the system with augmented matrix $[A \mid b]$.

   ◯ The augmented matrix $[A \mid b]$ has four rows.

   ◯ The matrix A has 5 columns.