1.1.23 True or False?

1. Every elementary row operation is reversible.
2. A 5×6 matrix has six rows.
3. The solution set is a list of numbers that makes each equation in the system a true statement.
4. Two fundamental questions about a linear system involve existence and uniqueness.

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2. Two matrices are row equivalent if they have the same number of rows.
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3. A basic variable is a variable that corresponds to a pivot column in the coefficient matrix.
   True (by definition). Free variables are those that do not correspond to a pivot column.

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5. If one row in the echelon form of an augmented matrix is computed as [0 0 0 5 0], then the associated linear system is inconsistent.
   False. The row corresponds to the variable x_4 being equal to zero. The system still may or may not be consistent, depending on what the other rows look like.