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- ❸ 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.

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