A is an $m \times n$ matrix and $T : \mathbb{R}^n \to \mathbb{R}^m$ is the linear transformation $T(\mathbf{x}) = A\mathbf{x}$. The two columns show equivalent properties of A and T:

There is a $n \times m$ matrix C such that $CA = I_n$	There is a $n \times m$ matrix D such that $AD = I_m$
$\mathrm{Nul}(C) = \{\mathbf{0}\}$	$\mathrm{Col}(C) = \mathbb{R}^m$
T is one-to-one	T is onto
$\mathrm{rref}(A)$ has a pivot in every column	$\mathrm{rref}(A)$ has a pivot in every row
$\mathrm{rref}(A)$ has n pivots	$\mathrm{rref}(A)$ has m pivots
$\dim \mathrm{Nul}(A) = 0$	$\dim \mathrm{Col}(A) = m$
$\mathrm{rank}(A) = n$	$\mathrm{rank}(A) = m$
the only solution to $A\mathbf{x} = \mathbf{0}$ is $\mathbf{x} = 0$	for every $\mathbf{b}$ in $\mathbb{R}^m$, the equation $A\mathbf{x} = \mathbf{b}$ has a solution $\mathbf{x}$
the columns of A are linearly independent	the columns of A span $\mathbb{R}^m$
A has an invertible $n \times n$ submatrix	A has an invertible $m \times m$ submatrix
A has a nonzero $n \times n$ minor	A has a nonzero $m \times m$ minor

Some study advice: make sure you understand why all of the properties in each column are equivalent.