1.if A is a 2*3 matrix then the domain of the transformation T_A is $R^{2.}$.

F

2.there is at least one linear transformation $T*R^n \rightarrow R^m$ for which T(2x)=4T(x) for some vector in R^n.

F

3. if $T_A=R^n \rightarrow R^n$ and if $T_A(x)=0$ for every vector x in R^n then A is the n*n zero matrix.

T

4. if $T\begin{bmatrix} X1 \\ X2 \end{bmatrix} = \begin{bmatrix} 4X1 \\ X1 - X2 \\ 3X2 \end{bmatrix}$ then the standard matrix of T is $\begin{bmatrix} 0 & 4 \\ -1 & 1 \\ 3 & 0 \end{bmatrix}$.

F

5. T is a linear transformation from Rn to R^n with standard matrix A. If A is invertible then T^{-1} exists.

T