1. If a 2*2 matrix A has eigenvalues 2 and -3 then $\det(A^{-1})$=?
   (a) 6 (b) -6 (c) 1/6 (d) -1/6

   (d)

2. Matrix A = $\begin{bmatrix} 2 & 2 \\ 16 & 6 \end{bmatrix}$ has eigenvalue -2, what is the corresponding eigenvector?
   $\begin{bmatrix} 1 \\ -2 \end{bmatrix}$

3. If A is square and $A\vec{x} = \vec{b}$ is inconsistent for some vector $\vec{b}$ then the nullity of A is zero.
   false

4. If Rank(A) = Rank(A^T) then A is a square matrix.
   false

5. There is no 3*3 matrix whose row space and null space are both lines in 3-space.
   true