Quiz 5

Name: _____ Score: _____

1.

Linear functions	n vectors in V
$f : \mathbb{R}^n \to V$	$\{f(e_1), \ldots, f(e_n)\}$ in V
f one to one	_____
f onto	_____
f isomorphism	_____
image of f in V	_____

2. Find the determinant $\det A$ of the matrix A. Is A invertible?

$$A = \begin{bmatrix} 2 & -5 & 1 \\ 1 & -5 & 0 \\ 7 & -15 & 4 \end{bmatrix}$$

Determinant $\det A =$ _____

Invertible Not Invertible

3. Find the inverse A^{-1} of the matrix A:

$$A = \begin{bmatrix} 1 & -3 & -3 \\ -1 & 4 & 5 \\ 1 & -2 & 0 \end{bmatrix}$$

$$A^{-1} = \begin{bmatrix} \_\_\_\_\_ & \_\_\_\_\_ & \_\_\_\_\_ \\ \_\_\_\_\_ & \_\_\_\_\_ & \_\_\_\_\_ \\ \_\_\_\_\_ & \_\_\_\_\_ & \_\_\_\_\_ \end{bmatrix}$$