

REAL Quiz #2

NAME: (print!) _____

E-MAIL ADDRESS: (print!) _____

1. (5 pts.) Determine whether the given system is consistent, and if so, find its general solution in **vector form**.

$$x_1 - x_2 + x_4 = -4$$

$$x_1 - x_2 + 2x_4 + 2x_5 = -5$$

$$3x_1 - 3x_2 + 2x_4 - 2x_5 = -11 \quad .$$

2. True or False (Explain when appropriate)

(a) (1 pt.) The number of pivot columns of a matrix equals its rank.

(b) (1 pt.) If a matrix is in row echelon form, the leftmost non-zero entry of each non-zero row must be 1 .

(c) (1 pt.) A system of linear equations is called inconsistent if it has no solutions.