

**Quiz 1**

1. Find the rref (reduced row echelon form) of the matrix

$$\begin{bmatrix} 1 & 0 & 1 & 2 \\ -2 & 5 & -12 & 11 \\ 1 & -2 & 5 & -4 \end{bmatrix}$$

2. For each part below, say whether it is possible for a system of three linear equations in two variables to have a unique solution, infinitely many solutions, or no solution. In each case, either justify your answer (if negative) or provide an augmented matrix in rref with 3 rows and 3 columns with the specified number of solutions.

(a) Infinitely many solutions.

(b) Unique solution.

(c) No solution.