

Remember that your work is graded on the quality of your writing and explanation as well as the validity of the mathematics.

- (1) (10 Points) Use Cramer's rule to compute the solutions of the system

$$\begin{cases} -5x_1 + 2x_2 = 9 \\ 3x_1 - x_2 = -4 \end{cases}$$

- (2) (10 Points) Use determinants to find out if the set of vectors is linearly independent.

$$\begin{bmatrix} 7 \\ -4 \\ -6 \end{bmatrix}, \begin{bmatrix} -8 \\ 5 \\ 7 \end{bmatrix}, \begin{bmatrix} 7 \\ 0 \\ 5 \end{bmatrix}.$$