ALGEBRA 2 HONORS
PROBLEM SET #7

DUE DATE: SEPTEMBER 19, 2023

Question 1. Solve the system of linear equations using any method (substitution, elimination, matrix row reduction).

$$(a) \quad \begin{cases} x - 2y = 8 \\ 4x + y = 5 \end{cases}$$

$$(b) \quad \begin{cases} 3x + y = -10 \\ 2x + 5y = -24 \end{cases}$$

Question 2. The Valley Christian Vikings play a basketball match against the POMI Pink Panthers. The two teams scored a total of 68 points and the Vikings won the match by a margin of 28 points. How many points did each team score?

Question 3. Solve the system of equations (using a matrix)

$$\begin{cases} x + 3y - z = 15 \\ 2x + y + z = 7 \\ x - y - 2z = 0 \end{cases}$$