

Determine whether the following system has no solution, an infinite number of solutions or a unique solution.

$$\boxed{} \quad 1. \quad \begin{cases} -7x - 3y + 3z = 3 \\ -3x - 2y - z = -4 \\ 13x + 7y - z = 0 \end{cases}$$

$$\boxed{} \quad 2. \quad \begin{cases} 4x + 16y + 55z = 1 \\ -x - 5y - 17z = 8 \\ 4x + 16y + 56z = 4 \end{cases}$$

$$\boxed{} \quad 3. \quad \begin{cases} -2x - 10y + 2z = 4 \\ -5x - 25y + 5z = 10 \\ 6x + 30y - 6z = -12 \end{cases}$$

$$\boxed{} \quad 4. \quad \begin{cases} -7x - 3y + 3z = 3 \\ -3x - 2y - z = -4 \\ 13x + 7y - z = 5 \end{cases}$$

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$$\boxed{\text{Unique}} \quad 2. \begin{cases} 4x + 16y + 55z = 1 \\ -x - 5y - 17z = 8 \\ 4x + 16y + 56z = 4 \end{cases}$$

$$\boxed{\text{Infinite}} \quad 3. \begin{cases} -2x - 10y + 2z = 4 \\ -5x - 25y + 5z = 10 \\ 6x + 30y - 6z = -12 \end{cases}$$

$$\boxed{\text{Infinite}} \quad 4. \begin{cases} -7x - 3y + 3z = 3 \\ -3x - 2y - z = -4 \\ 13x + 7y - z = 5 \end{cases}$$