Name _____ Date _____ Class _____

Solving Linear Systems in Three Variables II

Determine the number of solutions for each.

1. $\begin{cases} 2x - 6y + 4z = 3 \\ -3x + 9y - 6z = -3 \\ 5x - 15y + 10z = 5 \end{cases}$

2. $\begin{cases} -4x + 2y + 2z = -2 \\ 2x - y - z = 1 \\ x + y + z = 2 \end{cases}$

Write a system of equations and solve.

3. At the arcade Sami won 2 blue tickets, 1 yellow ticket and 3 red tickets for 1500 total points. Jamal won 1 blue ticket, 2 yellow tickets, and 2 red tickets for 1225 total points. Yvonne won 2 blue tickets, 3 yellow tickets, and 1 red ticket for 1200 total points Write and solve a system of equations to determine the point value of each type of ticket.

Solving Linear Systems in Three Variables II

Determine the number of solutions for each.

1. $\begin{cases} 2x - 6y + 4z = 3 \\ -3x + 9y - 6z = -3 \\ 5x - 15y + 10z = 5 \end{cases}$

2. $\begin{cases} -4x + 2y + 2z = -2 \\ 2x - y - z = 1 \\ x + y + z = 2 \end{cases}$

Write a system of equations and solve.

3. At the arcade Sami won 2 blue tickets, 1 yellow ticket and 3 red tickets for 1500 total points. Jamal won 1 blue ticket, 2 yellow tickets, and 2 red tickets for 1225 total points. Yvonne won 2 blue tickets, 3 yellow tickets, and 1 red ticket for 1200 total points Write and solve a system of equations to determine the point value of each type of ticket.