Name: _____ Class: _____ Date: _____ ID: A

Lesson #3-3: EXTRA PRACTICE: Understanding and Solving Systems of Three Equations with Three Variables (Reference: Lesson #29 in book)

Problem

1. **For each of the following systems of three equations, please solve the system of equations, state your solution as a three dimensional coordinate point, and determine the classification (Consistent or Inconsistent) of the system of equations.(SHOW ALL OF YOUR WORK.)**

   1. $-x-5y+z=17$
      $-5x-5y+5z=5$
      $2x+5y-3z=-10$

2. $5x+5y+5z=-20$
   $4x+3y+3z=-6$
   $-4x+3y+3z=90$

3. $5x-4y+2z=21$
   $-x-5y+6z=-24$
   $-x-4y+5z=-21$

4. $-5x+3y+6z=4$
   $-3x+y+5z=-5$
   $-4x+2y+z=13$

5. $x+2y-z=5$
   $x-y+z=-2$
   $-5x-4y+z=-11$