Lesson #3-4: EXTRA PRACTICE-2: 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. $4x - 4y + 4z = -4$
      $4x + y - 2z = 5$
      $-3x - 3y - 4z = -16$

   2. $-6x - 2y + 2z = -8$
      $3x - 2y - 4z = 8$
      $6x - 2y - 6z = -18$

   3. $x + y + z = 5$
      $2x - y + z = 9$
      $x - 2y + 3z = 16$

   4. $x - 6y + 4z = -12$
      $x + y - 4z = 12$
      $2x + 2y + 5z = -15$

   5. $2x + y - z = 2$
      $-x - 3y + z = -1$
      $-4x + 3y + z = -4$