Name _____ **Date** _____

4.4 Exercises - Solving Systems with 3 Variables

Solve the following systems of equations.

1. $4x + 2y - 6z = -38$
   $5x - 4y + z = -18$
   $x + 3y + 7z = 38$

2. $2p - 5q + r = 1$
   $3q + 2r = 5$
   $r = -2$

3. $3x = -12$
   $2x - y + 3z = -1$
   $3x + 4 - z = -7$

4. $4x + y = -7$
   $x - 2z = 4$
   $3y + 2z = 8$

5. $-2y - 6z = 4$
   $y + 4z = -5$
   $x + 2y + 7z = -1$

6. $x - 3y = 0$
   $2x + 3y + 3z = 18$
   $x + 2y - 4z = 10$

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

8. $3x - 2y + 2z = 0$
$2x + y - z = 0$
$2x - y + 3z = 0$

9. $6x + 2y - 3z = -17$
$7x - 5y + z = 72$
$2x + 8y + 3z = -21$

10. $4x + y + z = 5$
$3x + 3y - 2z = 22$
$x - 2y - z = 3$