Name _____ Date _____
Mr. Schlansky Algebra II

Solving Linear Systems with Three Variables Using PlySmlt2

1. Which value is contained in the solution of the system shown below?

$2x + y - z = 1$

$x - 2y + z = 0$

$3x - y + 2z = 7$

1) 0
2) -1
3) 2
4) -3

2. Which value is *not* contained in the solution of the system shown below?

$a + 5b - c = -20$

$4a - 5b + 4c = 19$

$-a - 5b - 5c = 2$

1) -2
2) 2
3) 3
4) -3

3. Which value is contained in the solution of the system shown below?

$3x + y + z = -4$

$x - 2y + z = -5$

$2x + 3y - 2z = -9$

3) -3
4) -4
3) -5
4) -9

4. Which value is *not* contained in the solution of the system shown below?

$4x - 5y + 2z = 130$

$3x + 2y - 7z = -99$

$10x - 6y - 4z = 112$

1) -8
2) -12
3) 10
4) 15

5. What is the solution of the system shown below?

$6x - 3y + 2z = 78$

$4x + 2y - 5z = -40$

$-3x - 4y - 3z = -41$

1) $x = 2,\ y = -4,\ z = 6$
2) $x = 7,\ y = -4,\ z = 12$
3) $x = 78,\ y = -40,\ z = -41$
4) $x = 6,\ y = 2,\ z = -3$

6. Solve the following system of equations for all values of x, y, and z using matrix method:

$$x + 3y + 5z = 45$$

$$6x - 3y + 2z = -10$$

$$-2x + 3y + 8z = 72$$

7. Solve the following system of equations for all values of x, y, and z using matrix method:

$$x + 2y = 3z - 2$$

$$2x - 7 = 2y - z$$

$$x + y + 2z = -4$$

8. Solve the following system of equations for all values of x, y, and z using matrix method:

$$-x + y + 2z = 7$$

$$2x + 3y - 1 = -z$$

$$-4y + z = 4 + 3x$$

9. Solve the following system of equations for all values of x, y, and z using matrix method:

$$2x - y + z = 7$$

$$x + 2y - 5z = -1$$

$$x = y + 6$$

10. Solve the following system of equations for all values of x, y, and z using matrix method:

$$y + 3z = 2x + 20$$

$$-3x + 21 + 2y = -z$$

$$3x - 2y + 3z = -9$$

11. Solve the following system of equations for all values of x, y, and z using matrix method:

$$y = -2x + 14$$

$$3x - 4z = 2$$

$$3x - y = 16$$