

MATH 122
SYSTEMS OF LINEAR EQUATIONS

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

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

2. $2x + 3y = 0$
 $x + 2y = -1$

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

3. $a + 2b + 3c = 4$
 $a + b + c = 1$
 $a + 3b + 7c = 13$

7. $4x + 9y - z = 0$
 $x + 4y - z = -1$
 $x - 3y + 2z = 3$

4. $r - s - t = -15$
 $r + s + t = 9$
 $r + s - t = -5$

8. $4x + 9y - z = 1$
 $x + 4y - z = 2$
 $x - 3y + 2z = 3$

Answers:

1. $(-2, 1)$

2. $(3, -2)$

3. $(1, -3, 3)$

4. $(-3, 5, 7)$

5. $(1, 1, 2)$

6. inconsistent

7. dependent $\left(t, \frac{1-3t}{5}, \frac{9-7t}{5} \right)$

8. inconsistent