Solving a System of Equations

Matrices

Cramer's Rule

Solve for the system by using the Matrix Method.

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

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

3. $x + 4y = 1$
   $3x - y = 3$

4. $x + 5y = 2$
   $4x - y = 8$

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

6. $2x + y = 0$
   $4x - y = -6$

7. $3x - 2y = -6$
   $6x - y = 3$

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

9. $-x + 3y = -14$
   $x - y = 6$

10. $-x + 3y = 14$
    $x - y = -6$

11. $-3x + 2y = 4$
    $4x - y = 3$

12. $-3x + 2y = -4$
    $4x - y = -13$

13. $x + 5y = -3$
    $-3x - 15y = 9$

14. $x + 5y = -2$
    $-3x - 15y = 6$

15. $4x + 5y = -2$
    $8x + 10y = -4$

16. $4x + 5y = -5$
    $8x + 10y = -10$

17. $3x - y = 4$
$3x - y = 5$

18. $3x - y = 2$
$3x - y = 7$

19. $-5x + 2y = 8$
$-10x + 4y = 20$

20. $-5x + 2y = -8$
$-10x + 4y = -20$

21. $x - 3y = -4$
$2x - 6y = 8$

22. $x - 3y = -5$
$2x - 6y = 11$

23. $2x - y + 4z = -3$
$x - 4z = 5$
$6x - y + 2z = 10$

24. $3x + 2y + 2z = 3$
$x + 2y - z = 5$
$2x - 4y + z = 0$

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

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

27. $3x - y + 2z = 1$
$x - y + 2z = 3$
$-2x + 3y + z = 1$

28. $3x + 2y - z = 4$
$3x - 2y + z = 5$
$4x - 5y - z = -1$

29. $2x - 3y + 5z = 27$
$x + 2y - z = -4$
$5x - y + 4z = 27$

30. $x - y + 2z = -3$
$x + 2y + 3z = 4$
$2x + y + z = -3$

Solve for the system by using Cramer's Rule.

31. $2x + y = 1$
$4x - y = -7$

32. $2x + y = 0$
$4x - y = -6$

33. $x + 5y = -3$
$-3x - 15y = 9$

34. $x + 5y = -2$
$-3x - 15y = 6$

35. $4x + 5y = -2$
$8x + 10y = -4$

36. $4x + 5y = -5$
$8x + 10y = -10$

37. $x - 3y = -4$
$2x - 6y = 8$

38. $x - 3y = -5$
$2x - 6y = 11$

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

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

41. $3x - y + 2z = 1$
$x - y + 2z = 3$
$-2x + 3y + z = 1$

42. $3x + 2y - z = 4$
$3x - 2y + z = 5$
$4x - 5y - z = -1$