

Practice

Substitution

Use substitution to solve each system of equations. If the system does not have exactly one solution, state whether it has no solution or infinitely many solutions.

1. $y = 4x$
 $x + y = 5$

2. $x = -4y$
 $3x + 2y = 20$

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

4. $3x - y = 4$
 $2x - 3y = -9$

5. $x + 5y = 4$
 $3x + 15y = -1$

6. $x - 5y = 10$
 $2x - 10y = 20$

7. $x + 4y = 8$
 $2x - 5y = 29$

8. $4x + y = 0$
 $x + 2y = -7$

9. $2x - 3y = -24$
 $x + 6y = 18$

10. $x + 14y = 84$
 $2x - 7y = -7$

11. $0.3x - 0.2y = 0.5$
 $x + 2y = 15$

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

13. $3x - 2y = 11$
 $x - \frac{y}{2} = 4$

14. $\frac{1}{2}x + 2y = 12$
 $x - 2y = 6$

15. $\frac{x}{3} - y = 3$
 $2x + y = 25$