

Determine if the given lines intersect. If the lines do not intersect then explain why. If the lines intersect then determine the point of intersection.

1. $5x + y = 8$
 $3x - 4y = 14$

2. $4x + y = -1$
 $x - 2y = 11$

3. $4x + 13y = 5$
 $-6x + y = 13$

4. $x + 4y = 7$
 $-x + 3y = 7$

5. $9x + 5y = 6$
 $2x - 5y = -17$

6. $5x + 3y = 19$
 $2x - 5y = 11$

7. $3x + 2y = 3$
 $9x - 8y = -2$

8. $5x - 9y = 7$
 $7y - 3x = -5$

9. $3x - 5y = -2$
 $5y - 3x = 7$

10. $2x + 3y = 1$
 $4x + 6y = 2$

11. $\frac{2}{5}x + \frac{1}{2}y = 2$
 $\frac{1}{2}x - \frac{1}{6}y = 3$

12. $5x + 3y = 17$
 $6x - 18y = -12$

13. $\frac{1}{3}x + \frac{1}{5}y = 7$
 $\frac{1}{6}x - \frac{2}{5}y = -4$

14. $3x - 2y = 1$
 $-6x + 4y = -2$

15. $5x - 9y = 7$
 $15x - 27y = 21$

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

17. $3x + 2y = 14$
 $x - 2y = 10$

18. $x + y = 4$
 $x + 7y = 11$

19. $2x - y + 2 = 0$
 $4x + y - 5 = 0$

20. $\frac{1}{5}x + \frac{1}{2}y = 8$
 $x + y = 20$

21. $2x - 4y = -2 + x - y$
 $4x + 5y = 17 - x + 2y$

22. $3x + 4y - 5 = y - 5$
 $10x - 4y - 5 = 5 - 2y + 7x$

23. $2(3x + 2y - 2) - 4 = 16 - (x + y) - 3y$
 $2(x - 4y) - 3y = 8 - (3y - x)$