

Chapter 2 Section 5: Linear Inequalities

Problems

Graph the solution set of each inequality.

1. $x + y \leq 4$

2. $2x + y < 5$

3. $x + 3y > -3$

4. $x - 2y \geq 2$

5. $2y + 3x \leq 15$

6. $3x - 4y \leq 12$

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7. $8x + 3y < 24$

8. $5x + 6y \leq 30$

9. $7x - 4y > 28$

10. $3x - 5y > 15$

11. $-x + 2y > -8$

12. $\frac{x}{3} + \frac{y}{4} < 1$

13. $y \geq x + 1$

14. $y > -2x + 3$

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15. $y < 2x$

16. $y \leq \frac{1}{2}x$

17. $y > -\frac{2}{3}x + 3$

18. $y > \frac{3}{2}x + 3$

19. $y \geq \frac{5}{2}x + 5$

20. $2x - 12 \geq 8y$

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21. $15 + 2y \leq 3x$

22. $6x + 3 > 3y$

23. $5y < 2x - 20$

24. $3x + 4 \geq 2y$

25. $12x > 2y + 9$

26. $9x \leq 12 - 3y$

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27. $15 + 6y \geq 2x$

28. $\frac{2x - 3y}{6} > -\frac{2}{3}$

29. $1.5 \leq 0.3x - 0.5y$

30. $1.2 > 0.2x + 0.6y$

31. $y \leq -4$

32. $y > 0$

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33. $x > -7$

34. $y \leq 8$

35. $y > -\frac{1}{3}$

36. $x < \frac{1}{2}$

37. $x \leq \frac{5}{8}$

38. $y \geq -\frac{13}{12}$

39. $x \geq -\frac{4}{3}$

40. $y > -1$