

Solve each of the following inequalities for y :

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| 1. $\frac{-11}{4}x + \frac{14}{3}y > 20$ | 28. $\frac{23}{4}x + \frac{7}{6}y \geq 22$ | 55. $25x + 8y > \frac{-21}{6}$ |
| 2. $\frac{29}{6}x + \frac{-8}{4}y > \frac{-4}{4}$ | 29. $\frac{8}{7}x + \frac{-28}{5}y < \frac{-9}{7}$ | 56. $\frac{5}{5}x + \frac{14}{4}y \geq \frac{9}{4}$ |
| 3. $6x + -2y \geq \frac{-19}{3}$ | 30. $\frac{10}{7}x + \frac{2}{4}y < \frac{10}{3}$ | 57. $\frac{21}{6}x + 9y \geq \frac{-4}{3}$ |
| 4. $\frac{27}{5}x + \frac{12}{7}y \leq \frac{11}{2}$ | 31. $\frac{-3}{3}x + \frac{12}{2}y > \frac{-7}{3}$ | 58. $\frac{28}{3}x + \frac{8}{6}y \geq 22$ |
| 5. $\frac{1}{7}y \leq \frac{20}{2}$ | 32. $\frac{28}{4}x + \frac{-7}{2}y > \frac{18}{4}$ | 59. $\frac{2}{7}x + \frac{6}{3}y < \frac{10}{2}$ |
| 6. $\frac{-29}{7}x + \frac{8}{4}y \leq \frac{-3}{7}$ | 33. $\frac{5}{7}x + \frac{-7}{2}y > \frac{25}{2}$ | 60. $\frac{3}{6}x + \frac{-9}{6}y < \frac{5}{6}$ |
| 7. $5x + -28y \leq \frac{-5}{6}$ | 34. $\frac{-2}{7}x + \frac{-11}{4}y \geq \frac{9}{6}$ | 61. $\frac{-28}{7}x + -13y \geq 15$ |
| 8. $\frac{30}{2}x + \frac{-2}{2}y > \frac{24}{3}$ | 35. $\frac{25}{2}y < \frac{10}{2}$ | 62. $\frac{-29}{6}x + \frac{28}{7}y \geq -4$ |
| 9. $\frac{-3}{4}x + \frac{2}{3}y > \frac{15}{5}$ | 36. $\frac{-19}{5}x + \frac{16}{5}y > \frac{-23}{7}$ | 63. $\frac{-29}{6}x + \frac{-21}{7}y < \frac{-8}{7}$ |
| 10. $\frac{21}{4}x + \frac{-9}{6}y \geq \frac{10}{6}$ | 37. $\frac{24}{3}x + \frac{15}{5}y \leq \frac{17}{6}$ | 64. $\frac{-23}{6}x + \frac{18}{6}y < 0$ |
| 11. $\frac{-21}{6}x + -24y > \frac{-4}{3}$ | 38. $-13x + -5y < \frac{-17}{6}$ | 65. $\frac{-19}{2}x + \frac{27}{6}y > \frac{-18}{3}$ |
| 12. $\frac{4}{5}x + \frac{7}{4}y > \frac{16}{3}$ | 39. $\frac{-11}{2}x + \frac{-23}{4}y \geq \frac{-17}{7}$ | 66. $\frac{-25}{7}x + \frac{24}{5}y > \frac{-19}{3}$ |
| 13. $24x + \frac{13}{6}y \leq \frac{-19}{2}$ | 40. $-23x + \frac{-24}{5}y \leq -10$ | 67. $\frac{-6}{2}x + \frac{10}{7}y \geq \frac{-10}{3}$ |
| 14. $\frac{26}{7}x + -25y \leq \frac{-19}{4}$ | 41. $\frac{-30}{5}x + \frac{-12}{6}y < -24$ | 68. $\frac{-12}{7}x + \frac{-9}{2}y > \frac{-30}{7}$ |
| 15. $\frac{-30}{2}x + \frac{-23}{4}y \leq \frac{-8}{5}$ | 42. $\frac{5}{7}x + 10y \leq \frac{7}{7}$ | 69. $\frac{-12}{6}x + -15y > 17$ |
| 16. $\frac{-26}{4}x + 30y < \frac{-25}{4}$ | 43. $-14x + \frac{28}{6}y \geq \frac{-10}{3}$ | 70. $\frac{-15}{5}x + -21y < 0$ |
| 17. $\frac{-18}{7}x + \frac{-30}{4}y \leq \frac{-13}{5}$ | 44. $\frac{-14}{7}x + -28y > 12$ | 71. $\frac{20}{5}x + \frac{27}{3}y \geq -19$ |
| 18. $\frac{30}{4}x + \frac{24}{4}y < \frac{9}{2}$ | 45. $\frac{5}{5}x + 17y > \frac{-27}{5}$ | 72. $\frac{30}{5}x + \frac{-13}{7}y > \frac{-19}{6}$ |
| 19. $\frac{-23}{7}x + \frac{-17}{7}y \geq \frac{-11}{7}$ | 46. $\frac{-15}{2}x + \frac{10}{3}y \leq \frac{-1}{4}$ | 73. $\frac{19}{3}x + \frac{-23}{7}y \geq 11$ |
| 20. $-8x + \frac{1}{3}y \geq \frac{-18}{2}$ | 47. $\frac{-8}{5}x + \frac{10}{6}y \geq \frac{8}{4}$ | 74. $\frac{-16}{5}x + \frac{9}{5}y \geq \frac{-3}{6}$ |
| 21. $\frac{14}{4}x + \frac{3}{3}y > \frac{-2}{6}$ | 48. $\frac{10}{6}x + -25y < \frac{-6}{2}$ | 75. $\frac{25}{3}x + \frac{-14}{6}y \leq \frac{14}{7}$ |
| 22. $25x + \frac{21}{3}y < \frac{-25}{4}$ | 49. $\frac{-11}{3}x + \frac{-13}{6}y < \frac{-6}{6}$ | 76. $-13x + \frac{-17}{7}y < \frac{22}{2}$ |
| 23. $\frac{7}{4}x + \frac{17}{5}y \geq 23$ | 50. $\frac{-2}{3}x + \frac{-7}{4}y \leq -24$ | 77. $\frac{16}{4}x + \frac{4}{5}y > \frac{26}{6}$ |
| 24. $\frac{-21}{3}x + \frac{-16}{5}y < \frac{-25}{2}$ | 51. $\frac{6}{6}y < \frac{-17}{7}$ | 78. $-17x + \frac{-2}{6}y < \frac{-4}{3}$ |
| 25. $\frac{1}{3}x + -26y \leq -2$ | 52. $\frac{17}{2}x + -9y < \frac{-26}{5}$ | 79. $-9x + \frac{8}{6}y < \frac{-29}{6}$ |
| 26. $\frac{24}{5}x + \frac{-6}{3}y > \frac{5}{3}$ | 53. $\frac{26}{5}x + \frac{18}{4}y \leq \frac{-19}{5}$ | |
| 27. $\frac{-13}{5}x + \frac{-18}{4}y > \frac{18}{4}$ | 54. $\frac{23}{4}x + \frac{2}{3}y \geq 0$ | |

Solutions:

1. $y > \frac{33}{56}x + \frac{30}{7}$ 28. $y \geq \frac{-69}{14}x + \frac{132}{7}$ 55. $y > \frac{-25}{8}x + \frac{-7}{16}$
 2. $y < \frac{29}{12}x + \frac{1}{2}$ 29. $y > \frac{10}{49}x + \frac{45}{196}$ 56. $y \geq \frac{-2}{7}x + \frac{9}{14}$
 3. $y \leq 3x + \frac{19}{6}$ 30. $y < \frac{-20}{7}x + \frac{20}{3}$ 57. $y \geq \frac{-7}{18}x + \frac{-4}{27}$
 4. $y \leq \frac{-63}{20}x + \frac{77}{24}$ 31. $y > \frac{1}{6}x + \frac{-7}{18}$ 58. $y \geq -7x + \frac{33}{2}$
 5. $y \leq 70$ 32. $y < 2x + \frac{-9}{7}$ 59. $y < \frac{-1}{7}x + \frac{5}{2}$
 6. $y \leq \frac{29}{14}x + \frac{-3}{14}$ 33. $y < \frac{10}{49}x + \frac{-25}{7}$ 60. $y > \frac{1}{3}x + \frac{-5}{9}$
 7. $y \geq \frac{5}{28}x + \frac{5}{168}$ 34. $y \leq \frac{-8}{77}x + \frac{-6}{11}$ 61. $y \leq \frac{-4}{13}x + \frac{-15}{13}$
 8. $y < 15x + -8$ 35. $y < \frac{2}{5}$ 62. $y \geq \frac{29}{24}x + -1$
 9. $y > \frac{9}{8}x + \frac{9}{2}$ 36. $y > \frac{19}{16}x + \frac{-115}{112}$ 63. $y > \frac{-29}{18}x + \frac{8}{21}$
 10. $y \leq \frac{7}{2}x + \frac{-10}{9}$ 37. $y \leq \frac{-8}{3}x + \frac{17}{18}$ 64. $y < \frac{23}{18}x$
 11. $y < \frac{-7}{48}x + \frac{1}{18}$ 38. $y > \frac{-13}{5}x + \frac{17}{30}$ 65. $y > \frac{19}{9}x + \frac{-4}{3}$
 12. $y > \frac{-16}{35}x + \frac{64}{21}$ 39. $y \leq \frac{-22}{23}x + \frac{68}{161}$ 66. $y > \frac{125}{168}x + \frac{-95}{72}$
 13. $y \leq \frac{-144}{13}x + \frac{-57}{13}$ 40. $y \geq \frac{-115}{24}x + \frac{25}{12}$ 67. $y \geq \frac{21}{10}x + \frac{-7}{3}$
 14. $y \geq \frac{26}{175}x + \frac{19}{100}$ 41. $y > -3x + 12$ 68. $y < \frac{-8}{21}x + \frac{20}{21}$
 15. $y \geq \frac{-60}{23}x + \frac{32}{115}$ 42. $y \leq \frac{-1}{14}x + \frac{1}{10}$ 69. $y < \frac{-2}{15}x + \frac{-17}{15}$
 16. $y < \frac{13}{60}x + \frac{-5}{24}$ 43. $y \geq 3x + \frac{-5}{7}$ 70. $y > \frac{-1}{7}x$
 17. $y \geq \frac{-12}{35}x + \frac{26}{75}$ 44. $y < \frac{-1}{14}x + \frac{-3}{7}$ 71. $y \geq \frac{-4}{9}x + \frac{-19}{9}$
 18. $y < \frac{-5}{4}x + \frac{3}{4}$ 45. $y > \frac{-1}{17}x + \frac{-27}{85}$ 72. $y < \frac{42}{13}x + \frac{133}{78}$
 19. $y \leq \frac{-23}{17}x + \frac{11}{17}$ 46. $y \leq \frac{9}{4}x + \frac{-3}{40}$ 73. $y \leq \frac{133}{69}x + \frac{-77}{23}$
 20. $y \geq 24x + -27$ 47. $y \geq \frac{24}{25}x + \frac{6}{5}$ 74. $y \geq \frac{16}{9}x + \frac{-5}{18}$
 21. $y > \frac{-7}{2}x + \frac{-1}{3}$ 48. $y > \frac{1}{15}x + \frac{3}{25}$ 75. $y \geq \frac{25}{7}x + \frac{-6}{7}$
 22. $y < \frac{-25}{7}x + \frac{-25}{28}$ 49. $y > \frac{-22}{13}x + \frac{6}{13}$ 76. $y > \frac{-91}{17}x + \frac{-77}{17}$
 23. $y \geq \frac{-35}{68}x + \frac{115}{17}$ 50. $y \geq \frac{-8}{21}x + \frac{96}{7}$ 77. $y > -5x + \frac{65}{12}$
 24. $y > \frac{-35}{16}x + \frac{125}{32}$ 51. $y < \frac{-17}{7}$ 78. $y > -51x + 4$
 25. $y \geq \frac{1}{78}x + \frac{1}{13}$ 52. $y > \frac{17}{18}x + \frac{26}{45}$ 79. $y < \frac{27}{4}x + \frac{-29}{8}$
 26. $y < \frac{12}{5}x + \frac{-5}{6}$ 53. $y \leq \frac{-52}{45}x + \frac{-38}{45}$
 27. $y < \frac{-26}{45}x + -1$ 54. $y \geq \frac{-69}{8}x$