

Solve each of the following for x :

1. $13x - 18x \geq -16x + (-14) + 4$
2. $-16 - (-1) - 20 \geq -2x + (-19)$
3. $-17 - 4 + 10 > 4x - 7$
4. $18x - (-9x) + (-8) < -12 - (-14x)$
5. $-13x + (-13) > 3x - 1 + (-16x)$
6. $9 + 13 < -13x + 9 + 2x$
7. $-13 - (-10x) - (-7) \leq 14x - 18x$
8. $-3x + (-4x) + (-x) > -2x + (-15)$
9. $-14 + (-11) - 1 < 3x - (-x) - (-15x)$
10. $1 - 17x \leq -17x - 8 - (-10)$
11. $-19 - (-1) > 1 - (-18x)$
12. $-9x - (-7x) \geq -16 - (-3x)$
13. $-9 - (-6x) > -4x + 4x$
14. $-6x + 15x + (-20x) \geq -14x - 6x - (-19)$
15. $-3x - (-3x) + 2 < 7 - 2$
16. $-4 + (-12x) + 17x < 5 - 6 - (-5x)$
17. $-8 - 13 < -13x - 16$
18. $5x + (-11x) + 16 \leq -6 + (-11x) - (-5x)$
19. $-3 - (-19) > -19 + (-11x)$
20. $15 - 19 - 8x \geq 5x + 6$
21. $9 + 12x - (-7) < -16 - 14x$
22. $-2x + (-6x) > -2x + 14$
23. $-4 + (-2x) - 6x \geq -3 - (-17x)$
24. $-20x - (-20) - (-16x) \leq -11 - 4$
25. $-9x + 17 - (-8x) > -18 - 3$
26. $15x + (-4x) - 6x > 20x + 3x$
27. $-16 + (-1) \geq -18x + 18x$
28. $-18x - (-15) \geq 15x + (-4x)$
29. $-14x - (-13x) \geq -10x + 18$
30. $-16 + 9x + (-17) < -17 + (-4x) + 1$
31. $11x + 18 < -15 + 15$
32. $12x + 17x \geq -11 - 3$
33. $15 - (-8x) \geq 17 - (-8) - (-8x)$
34. $-9 + (-3x) - 4 < -10x + (-17) - (-19)$
35. $-3 - (-19x) < 13 + 20$
36. $-18 + (-x) + (-4) > x + (-2x)$
37. $-20 - (-20) < 2 - (-2x) - 3x$
38. $-3x - 19 + (-11x) < -10x - 11 - (-8x)$
39. $-18x + 2 + 5x > 2x + (-12)$
40. $x + 17x < -15 - (-18) - (-20)$
41. $-5x + (-8) - (-5x) \geq -18 - 16$
42. $-7x + (-3x) > -4x + 9x$
43. $17 - 8 + 19 \leq 20x + 16 + 18x$
44. $20x + 18 \leq -19 - 2x - (-12x)$
45. $-3 - 2x \leq -15x - 16x$
46. $-17x + 10x - (-16) \leq 13 + 11 + (-20)$
47. $20 - 3x + (-4x) \leq 15x - (-4x)$
48. $-20 + 5 < -6x + (-16x)$
49. $12 + 10 > -7 - (-3x)$
50. $14x + 6x + (-14) \leq 8 - 6 - 11x$
51. $-8 - 6x > -9 - 11 + 10$
52. $2x - 2x - (-18x) \geq 14x + 20x - (-5)$
53. $-16 + (-6) - 18 \geq 13x + (-3x) + 6$
54. $-10x - 14x < 18x + 16x - 17$

55. $-15 + 13 \geq 4x - 14 - (-2x)$
56. $-14 + (-10x) - 12x \leq -18x + (-15)$
57. $16x - (-17) > -15 - 5$
58. $-10 + (-6) - (-7x) > -7x - 8$
59. $-9x - 14 \leq -9x + 12$
60. $-17x - 17 - x > -13 - 10x - 17x$
61. $14 + 6x + 5x \leq 15x + 12 + (-4x)$
62. $-15 + 5x \geq x + 15x$
63. $-6 - 20x - (-14x) \leq -6 - 6x$
64. $20 + (-8x) - (-3x) \geq 19 - 18$
65. $-9x + 12 + (-20) \geq 12 + (-10) - 9x$
66. $9 - (-5x) \geq -18 + (-8) - (-7)$
67. $8x - 11x + (-11) \geq 14x + 7x$
68. $16 + 16 \geq 16x + (-15)$
69. $-8 + (-8) \geq -18 - 16x - (-18)$
70. $-2x - 5x \geq -4 - (-9) + 14$
71. $-3 - (-1) + (-10x) > 4x + 19 - (-6x)$
72. $9 + 3 \leq -15 + (-7x)$
73. $5x - 6 > -1 - 5 + 16x$
74. $-17x + 7x \geq 17x - 5$
75. $-11 + (-15) \geq -9x - (-1) - 5$
76. $17 - 19x \leq x - (-10x)$
77. $16x + 19x + (-10x) > 16 - (-14) - 11$
78. $-5x + 17x \geq -5 + 6$
79. $-11x - 9 \geq -15x - 13x + 2$
80. $13x + (-x) < 8 - 19x + 1$
81. $-19 - (-16) - (-13) > -3x + (-10x) - 17$
82. $-19x + 17 > 17x + 9x$
83. $20 + 20x + 10x < -6 - (-5x) - (-1)$
84. $-12x + 15 > 16x - (-2x)$
85. $9 - 17x \leq 2x + (-14x) + (-5x)$
86. $-16x - (-19) + (-6) < -16x + (-5) + 5$
87. $-19 - 8x + (-9) > -8x - (-6)$
88. $-7x + 6x < 11x - 7x + (-13)$
89. $7x + 2x < 17x + (-17x) + (-4x)$
90. $16x - 16x > 13 + (-15)$
91. $19x + 17 \leq 19x + 13 + (-17)$
92. $19x - (-2x) < -17 + 5x$
93. $6x - 16 \leq 6x - (-2)$
94. $10x + 1 > 4x - (-7)$
95. $2 + (-2) - (-17x) < -18 - (-17x) + (-11)$
96. $9x + 19x < -3x + (-11x) - (-16)$
97. $16 - (-4) - 7x \geq 19 - 14x$
98. $9x + 4x + 19x > x + (-18x) - 3x$
99. $9 - (-6) \leq -15x - 18$
100. $x + 17x < -12x - (-7)$

Solutions:

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|-----------------------------|-----------------------------|-----------------------------|----------------------------|
| 1. $x \geq \frac{-10}{11}$ | 26. $x < 0$ | 51. $x < \frac{1}{3}$ | 76. $x \geq \frac{17}{30}$ |
| 2. $x \geq 8$ | 27. No Solution | 52. $x \leq \frac{-5}{16}$ | 77. $x > \frac{19}{25}$ |
| 3. $x < -1$ | 28. $x \leq \frac{15}{29}$ | 53. $x \leq \frac{-23}{5}$ | 78. $x \geq \frac{1}{12}$ |
| 4. $x < \frac{-4}{13}$ | 29. $x \geq 2$ | 54. $x > \frac{17}{58}$ | 79. $x \geq \frac{11}{17}$ |
| 5. No Solution | 30. $x < \frac{17}{13}$ | 55. $x \leq 2$ | 80. $x < \frac{9}{31}$ |
| 6. $x < \frac{-13}{11}$ | 31. $x < \frac{-18}{11}$ | 56. $x \geq \frac{1}{4}$ | 81. $x > \frac{-27}{13}$ |
| 7. $x \leq \frac{3}{7}$ | 32. $x \geq \frac{-14}{29}$ | 57. $x > \frac{-37}{16}$ | 82. $x < \frac{17}{45}$ |
| 8. $x < \frac{5}{2}$ | 33. No Solution | 58. $x > \frac{4}{7}$ | 83. $x < -1$ |
| 9. $x > \frac{-26}{19}$ | 34. $x < \frac{15}{7}$ | 59. All Real Numbers | 84. $x < \frac{1}{2}$ |
| 10. All Real Numbers | 35. $x < \frac{36}{19}$ | 60. $x > \frac{4}{9}$ | 85. No Solution |
| 11. $x < \frac{-19}{18}$ | 36. No Solution | 61. No Solution | 86. No Solution |
| 12. $x \leq \frac{16}{5}$ | 37. $x < 2$ | 62. $x \leq \frac{-15}{11}$ | 87. No Solution |
| 13. $x > \frac{3}{2}$ | 38. $x > \frac{-2}{3}$ | 63. All Real Numbers | 88. $x > \frac{13}{5}$ |
| 14. $x \geq \frac{19}{9}$ | 39. $x < \frac{14}{15}$ | 64. $x \leq \frac{19}{5}$ | 89. $x < 0$ |
| 15. All Real Numbers | 40. $x < \frac{23}{18}$ | 65. No Solution | 90. All Real Numbers |
| 16. All Real Numbers | 41. All Real Numbers | 66. $x \geq \frac{-28}{5}$ | 91. No Solution |
| 17. $x < \frac{5}{13}$ | 42. $x < 0$ | 67. $x \leq \frac{-11}{24}$ | 92. $x < \frac{-17}{16}$ |
| 18. No Solution | 43. $x \geq \frac{6}{19}$ | 68. $x \leq \frac{47}{16}$ | 93. All Real Numbers |
| 19. $x > \frac{-35}{11}$ | 44. $x \leq \frac{-37}{10}$ | 69. $x \geq 1$ | 94. $x > 1$ |
| 20. $x \leq \frac{-10}{13}$ | 45. $x \leq \frac{3}{29}$ | 70. $x \leq \frac{-19}{7}$ | 95. No Solution |
| 21. $x < \frac{-16}{13}$ | 46. $x \geq \frac{12}{7}$ | 71. $x < \frac{-21}{20}$ | 96. $x < \frac{8}{21}$ |
| 22. $x < \frac{-7}{3}$ | 47. $x \geq \frac{10}{13}$ | 72. $x \leq \frac{-27}{7}$ | 97. $x \geq \frac{-1}{7}$ |
| 23. $x \leq \frac{-1}{25}$ | 48. $x < \frac{15}{22}$ | 73. $x < 0$ | 98. $x > 0$ |
| 24. $x \geq \frac{35}{4}$ | 49. $x < \frac{29}{3}$ | 74. $x \leq \frac{5}{27}$ | 99. $x \leq \frac{-11}{5}$ |
| 25. $x < 38$ | 50. $x \leq \frac{16}{31}$ | 75. $x \geq \frac{22}{9}$ | 100. $x < \frac{7}{30}$ |