Homework #13

Solve

1. $2x + 7 > 13$
2. $3x + 12 \leq 5$
3. $7 > 5 + 9x$
4. $4x + 6 > 7x$
5. $7 \leq 9(x + 3)$
6. $11 > 5 - 4x$
7. $6x - 4 \geq 8x + 6$
8. $5 - x > 8$
9. $3x + 8 > 7x + 11$
10. $4(x + 9) < -1$
11. $7 - 5x \geq 4$
12. $7x - 1 \geq 5x - 5$
13. $3(x + 6) < 5(x + 2)$
14. $4 - 7x \geq 9 - 2x$
15. $3x - 7 > x + 10$
16. $6x - 4 < 10x - 2$
17. $5(7 - x) > 3$
18. $6 - 2x \leq 10 + 2x$
19. $19 + 10x \leq 12 + 4x$
20. $7k + 2 > 9k - 4$
21. $5(x + 3) > 4(x + 7)$
22. $4y + 3 < 6(2 - y)$
23. $0.5x + 3 \geq x + 8$
24. $6x + 16 > 11x + 1$

Answers Homework #13

Solve: (Answers should be left in fraction form, unless whole numbers)

1. $2x + 7 > 13$

   $2x > 6$

   $x > 3$

2. $3x + 12 \leq 5$

   $3x \leq -7$

   $x \leq {}^{-7}/_{3}$

3. $7 > 5 + 9x$

   $9x + 5 < 7$

   $9x < 2x$

   $x < {}^{2}/_{9}$

4. $4x + 6 > 7x$

   $6 > 3x$

   $x < 2$ (or $2 > x$)

5. $7 \leq 9(x + 3)$

   $7 \leq 9x + 27$

   $-20 \leq 9x$

   $x \geq {}^{-20}/_{9}$ (or ${}^{-20}/_{9} \leq x$)

6. $11 > 5 - 4x$

   $11 + 4x > 5$

   $4x > -6$

   $x > {}^{-6}/_{4}$ (or $x > {}^{-3}/_{2}$)

7. $6x - 4 \geq 8x + 6$

   $-10 \geq 2x$

   $x \leq -5$ (or $-5 \geq x$)

8. $5 - x > 8$

   $5 > x + 8$

   $-3 > x$ (or $x < -3$)

9. $3x + 8 > 7x + 11$

   $-3 > 4x$

   $x < {}^{-3}/_{4}$

10. $4(x + 9) < -1$

    $4x + 36 < -1$

    $x < {}^{-37}/_{4}$

11. $7 - 5x \geq 4$

    $3 \geq 5x$

    $x \leq {}^{3}/_{5}$ (or ${}^{3}/_{5} \geq x$)

12. $7x - 1 \geq 5x - 5$

    $2x \geq -4$

    $x \geq -2$

13. $3(x + 6) < 5(x + 2)$

    $3x + 18 < 5x + 10$

    $8 < 2x$

    $x > 4$ (or $4 < x$)

14. $4 - 7x \geq 9 - 2x$

    $-5 \geq 5x$

    $x \leq -1$ (or $-1 \geq x$)

15. $3x - 7 > x + 10$

    $2x > 17$

    $x > {}^{17}/_{2}$

16. $6x - 4 < 10x - 2$

    $-2 < 4x$

    $x > -0.5$ (or ${}^{-1}/_{2} < x$)

17. $5(7 - x) > 3$

    $35 - 5x > 3$

    $32 > 5x$

    $x < {}^{32}/_{5}$

18. $6 - 2x \leq 10 + 2x$

    $-4 \leq 4x$

    $x \geq -1$ (or $-1 \leq x$)

19. $19 + 10x \leq 12 + 4x$

    $6x \leq -7$

    $x \leq {}^{-7}/_{6}$

20. $7k + 2 > 9k - 4$

    $6 > 2k$

    $k < 3$ (or $3 > k$)

21. $5(x + 3) > 4(x + 7)$

    $5x + 15 > 4x + 28$

    $x > 13$

22. $4y + 3 < 6(2 - y)$

    $4y + 3 < 12 - 6y$

    $10y < 9$

    $y < {}^{9}/_{10}$

23. $0.5x + 3 \geq x + 8$

    $-5 \geq 0.5x$

    $x \leq -10$ (or $-10 \geq x$)

24. $6x + 16 > 11x + 1$

    $15 > 5x$

    $x < 3$ (or $3 > x$)