

Kerry Ojakian's MTH 28.5 Class
Class Assignment #10

Determine which of the given values of the variable are solutions of the given inequality.

1. $x = 1, 3$, of $x > -2$

4. $x = -1, 0$, of $x + 7 < 9$

2. $x = -2, -3$, of $x \geq -2$

5. $x = -7, -1$, of $3x - 1 \leq -22$

3. $x = 2, 5$, of $2x > 6$

6. $x = -10, -4$, of $2(x + 3) \geq 0$

Represent the following sets on the real line.

7. $x > 1$

10. $x < -3$

8. $x \leq 0$

11. $x \geq -1.5$

9. $x > 0$

12. $x \leq 2/3$

Solve the inequality and graph its solution.

13. $2x + 7 > 15$

14. $5x - 4 < 16$

15. $3x - 5 < 12$

16. $6 - 2x \leq 14$

17. $-8 - 7x > -1$

18. $-5x + 7 > 12$

19. $6x - 5 < 2x - 13$

20. $x + 2 \geq 2 + 4x$

21. $4 \geq 2 + x$

22. $\frac{x}{5} + 6 < 9$

23. $\frac{5x}{2} \geq 15$

24. $\frac{-4x}{3} \leq -16$

25. $5(x - 1) + 3 \geq 5x - 2$

26. $-(x - 2) + 4 > 7 - x$

27. $2(x + 1) - 1 \geq 3 - x$

28. $6x - 2(x + 3) \geq -(4x + 6)$

29. $2 - (x + 1) < 5 - 2(x - 1)$

30. $-2(x - 2) + 2(x - 2) \leq 1$

Translate the expression into an inequality. Then solve it.

31. x plus 7 is larger than 10.

32. x plus 7 is larger than or equal to 10.

33. 3 times a number is larger than 6.

34. 10 more than a number is at least 100.

35. y minus 2 is positive.

36. y times 157 is negative.