

Quiz for Lessons 3-4 Through 3-6

3-4 Solving Two-Step and Multi-Step Inequalities

Solve each inequality and graph the solutions.

1. $2x + 3 < 9$

2. $3t - 2 > 10$

3. $7 \geq 1 - 6r$

Solve each inequality.

4. $2(x - 3) > -1$

5. $\frac{1}{3}a + \frac{1}{2} > \frac{2}{3}$

6. $2^2 - x > 4(3 - 5)$

7. $24b + 5 - 6b \leq 41$

8. $-7(7 + x) \geq -50$

9. $11d - (-2) < -15d$

10. $15 < 5(m - 7)$

11. $2 + (-6) > 8p$

12. The average of Mindy's two test scores must be at least 92 to make an A in the class. Mindy got an 88 on her first test. What scores can she get on her second test to make an A in the class?

3-5 Solving Inequalities with Variables on Both Sides

Solve each inequality and graph the solutions.

13. $5x < 3x + 8$

14. $6p - 3 > 9p$

15. $r - 8 \geq 3r - 12$

Solve each inequality.

16. $3(y + 6) > 2(y + 4)$

17. $4(5 - g) \geq g$

18. $5(t + 3) < 5t - 3$

19. $-2(6 + h) < 3(1 + h)$

20. $4x < 4(x - 1)$

21. $3(1 - x) \geq -3(x + 2)$

22. $9d > 3(1 - d)$

23. $16(s - 2) \leq 4(4s - 5)$

24. $5q \leq 2(q + 3)$

25. $3n > 5(n - 2)$

26. Phillip has \$100 in the bank and deposits \$18 per month. Gil has \$145 in the bank and deposits \$15 per month. For how many months will Gil have a larger bank balance than Phillip?

3-6 Solving Compound Inequalities

Solve each compound inequality and graph the solutions.

27. $-2 \leq x + 3 < 9$

28. $m + 2 < -1$ OR $m - 2 > 6$

29. $-3 \geq x - 1$ AND $x - 5 > 2$

30. $-2 > r + 2$ OR $r + 4 < 5$

31. $-2x > -8$ AND $x + 7 \geq 6$

32. $5 > y + 9$ OR $y - 4 > 2$

33. It is recommended that a certain medicine be stored in temperatures above 32° F and below 70° F. Write a compound inequality to show the acceptable storage temperatures for this medicine.