Math 9

Ch 6 Review Inequalities

Name _____   Date _____

1. Solve for x given $x + 45 = 91$.

2. Solve for x given $x + 34 = 72$.

3. Solve for x given $x - 46 = 96$.

4. Solve for x given $x + 64 = 22$.

5. Solve for x given $4x + 29 = -105$.

6. Solve for x given $\frac{4}{5}x - 23 = 25$.

7. Solve for x: $\frac{4}{5}x + 23 = -25$

8. Solve for x: $4(3x - 7) = 7$

9. Solve for x given $4(3x - 7) = -7$.

10. Solve for x given $4(x - 1) + 4x = 2(3x + 1)$.

11. Solve for x: $\dfrac{12x - 7}{4} = \dfrac{5x + 18}{3}$

12. Solve: $x - 26 > 35$

13. Solve: $x - 44 < -31$

14. Solve: $x - 26 > -35$

15. Solve: $12 - x < 31$

16. Solve: $26 - x > 35$

17. Solve: $44 - x < -31$

18. Solve: $26 - x > -35$

19. Solve: $5x - 18 > 2(4x - 15)$

20. Solve: $-4(-6 - 5x) - 23 < 9(2x + 3)$

21. How many of the following numbers are solutions to $2x - 17 < 13$?

    $-15, -14, 13, 14, 15$

22. How many of the following numbers are solutions to $13 - 2x < 28$?

    $-15, -14, 13, 14, 15$

Solve.

23. $8 - 2x + 13 < 5x - 3 - 2x$

24. $k + 10 + 6k - 12 > 4k - 2k$
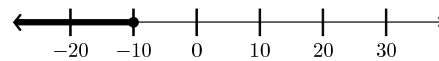
25. $3(2x - 5) > 5x - 3$

26. $7(3 - 4n) < 12n - 19$

27. $5(2w + 3) < 4(15 - w) - 3$

28. $11(2 - x) \leq 3x - 4(2x + 5)$

29. The cost of a new car (N) is more than 4 times the cost of a particular used car (U). Which of the following relationships correctly describes the relationship between N and U?

    a) $N > 4U$ b) $U < 4N$

    c) $N - U = 4$ d) $N = 4U + 4$
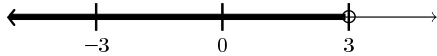
    e) $4U > N$

30. Which inequality describes the graph?

    a) $3x \leq -30$ b) $-3x < 30$ c) $-3x \leq 30$

    d) $-3x \leq -30$ e) $-3x \geq -30$

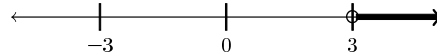31. Solve for n: $n + (n+1) + (n+2) = -75$

32. What is the number of integer solutions to $1 < x^2 < 25$?

33. Which inequality describes the graph?

a) $-x > -3$ b) $-x \leq -3$ c) $-x < -3$

d) $-x \geq -3$ e) $-x < 3$
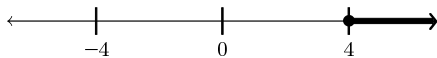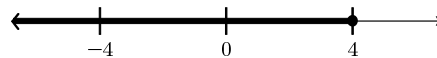
34. Which inequality describes the graph?

a) $-x > -3$ b) $-x \leq -3$ c) $-x < -3$

d) $-x \geq -3$ e) $-x < 3$

35. Which inequality describes the graph?

a) $-x > -4$ b) $-x \leq -4$ c) $-x < -4$

d) $-x \geq -4$ e) $-x < 4$

36. Which inequality describes the graph?

a) $-x > -4$ b) $-x \leq -4$ c) $-x < -4$

d) $-x \geq -4$ e) $-x < 4$

37. Angela's basketball team is in first place in their league. The second place team has won 10 games. Write an inequality that describes the number of games won by Angela's team.

38. Lincoln Junior High's debate team is in second place. The first place debate team has won 12 debates. Write an inequality describing the number of debates won by Lincoln.

39. Write an inequality to describe Tom's height. Tom is taller than Elise, who is 54 inches tall.

40. Sandy and Therese were born on the same date, but different years. Sandy is 15. Therese is younger than Sandy. Write an inequality to describe Therese's age.

41. Mrs. Torres has decided to spend no more than $10,000 plus 2 times her annual income to buy a house. What is the smallest yearly income she must have in order to afford a house that is $113,000?

42. Carmen is buying a new car, and wishes to spend no more than $\frac{2}{5}$ of his yearly salary on the car. The car he wants costs $11,500. What is the minimum yearly salary he must make in order to buy this car?

Math 9   Ch 6 Review Inequalities   Mr. Young   2/28/2012

Answer List

1.	46	2.	38	3.	142
4.	-42	5.	$-\frac{67}{2}$	6.	60
7.	-60	8.	$\frac{35}{12}$	9.	$\frac{7}{4}$
10.	3	11.	$\frac{93}{16}$	12.	$x > 61$
13.	$x < 13$	14.	$x > -9$	15.	$x > -19$
16.	$x < -9$	17.	$x > 75$	18.	$x < 61$
19.	$x < 4$	20.	$x < 13$	21.	4
22.	3	23.	$x > \frac{24}{5}$	24.	$k > \frac{2}{5}$
25.	$x > 12$	26.	$n > 1$	27.	$w < 3$
28.	$x \geq 7$	29.	a	30.	a
31.	-26	32.	6	33.	a
34.	c	35.	b	36.	d
37.	$w \geq 11$	38.	$d \leq 11$	39.	$t > 54$
40.	$t < 15$	41.	$51,500	42.	$28,750

Catalog List

1.	CM2 EA 9	2.	CM2 EA 10	3.	CM2 EA 12
4.	CM2 EA 14	5.	CM2 EA 34	6.	CM2 EA 38
7.	CM2 EA 40	8.	CM2 EA 42	9.	CM2 EA 46
10.	CM2 EA 48	11.	CM2 EA 52	12.	CM2 EC 4
13.	CM2 EC 6	14.	CM2 EC 8	15.	CM2 EC 10
16.	CM2 EC 12	17.	CM2 EC 14	18.	CM2 EC 16
19.	CM2 EC 22	20.	CM2 EC 24	21.	CM2 EC 38
22.	CM2 EC 40	23.	ALG OB 33	24.	ALG OB 34
25.	ALG OB 45	26.	ALG OB 46	27.	ALG OB 60
28.	ALG OB 59	29.	CM2 EB 7	30.	CM2 EC 51
31.	MCH BC 11	32.	MCH BD 61	33.	CM2 EC 47
34.	CM2 EC 48	35.	CM2 EC 49	36.	CM2 EC 50
37.	PRE LK 77	38.	PRE LK 78	39.	PRE LK 79
40.	PRE LK 80	41.	PRE LK 91	42.	PRE LK 92