

Chapter Test

Form A

Chapter 3

Is each number a solution of the given inequality?

1. $4y + 3 \leq -7$

a. -3 yes

b. -1 No

c. 3 No

2. $-6x + 2 > 5$

a. -3 yes

b. $-4\frac{1}{2}$ yes

c. -0.5 No

Write an inequality to model each situation.

3. The high temperature will be at least 75°F today.

$x \geq 75$

4. The class can contain at most 28 students.

$x \leq 28$

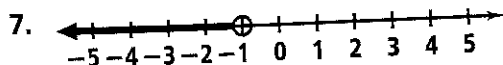
5. The bus can hold no more than 54 people.

$x \leq 54$

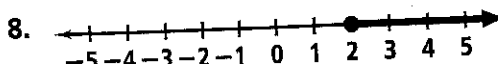
6. It will cost more than \$25 to rent a car.

$x > 25$

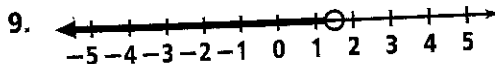
Write an inequality for each graph.



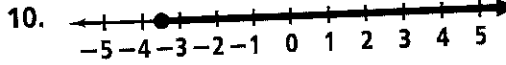
$x < -1$



$x \geq 2$



$x < 1.5$



$x \geq -3.5$

Solve each inequality. Graph the solution.

14. $-9 < 3n < 18$ $-3 < n < 6$

17. $15g < 90$ and $4 + g > 7$

$3 < g < 6$

20. $6y - 8 \leq 10$

$y \leq 3$

23. $-\frac{3}{5}x < 24$

$x > -40$

15. $-3 < 5c + 7 < 22$

$-2 < c < 3$

18. $4 - x > 3$

$x < 1$

21. $f \geq -5f + 36$

$f \geq 6$

24. $3x - 8 < -2x + 22$

$x < 6$

13. $-20 \leq 5y$

$y \geq -4$

16. $-6b > 42$ or $4b + 6 > 2$

$B < -7$ or $B > -1$

19. $m + 9 > 6$

$m > -3$

22. $-\frac{3}{4}a > 6$

$a < -8$

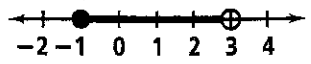
Pick 3 (11-24)

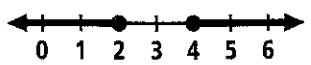
Chapter Test (continued)

Form A

Chapter 3

Write a compound inequality that each graph could represent.

31.  $-1 \leq x < 3$

32.  $x \leq 2 \text{ or } x \geq 4$

Choose 1 Word Problem (38 or 39)

38. Suppose you are working for a trucking company. Your job is to load a truck with at least 5000 lb of freight. You have loaded 2395 lb of freight, but you have to unload 50 lb that was loaded by mistake. Write and solve an inequality to find how many more pounds you need to load.

$$x + 2395 - 50 \geq 5000$$

at least 2655 lbs.

39. The art club is sponsoring four art shows. They hope the average attendance for the four shows will be between 100 and 120 inclusive. The attendance for the first three shows was 100, 105, and 91. What possible attendance values for the fourth show will allow them to reach their goal? Write and solve an inequality for this situation.

$$100 \leq \frac{100 + 105 + 91 + x}{4} \leq 120$$

Between 104 and 184