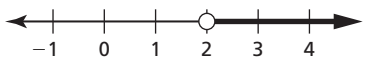
Name_____ Date _____

Chapter 2 Test A

Write the sentence as an inequality.

1. The sum of twice a number n and 8 is at most 25.
2. The temperature t is at least 75°F.
3. The cost of a ticket t will be no more than \$26.

Write an inequality that represents the graph.

4. 

5. 

Solve the inequality. Graph the solution.

6. $-9 < m - 6$

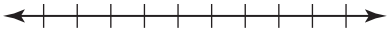
7. $-3z \geq 6 + 3z$

Solve the inequality.

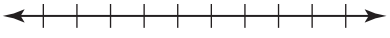
8. $m \geq 5m - 4$
9. $\frac{x}{4} + 6 \leq x + 8$
10. $\frac{1}{2}h + 2 \geq \frac{1}{2}(h + 8)$
11. $4k - (3 + 3k) > 2$
12. $4n + 3 < 6n + 8 - 2n$
13. $10 - 2(3x - 1) > 6x + 10$

Solve the inequality. Graph the solution.

14. $-3y > 9$ *or* $2y - 6 > 2$



15. $-1 < c + 2 < 3$



Solve the inequality.

16. $2a + 1 < 11$ *or* $a < 3a - 12$
17. $32 > 16 - 4g > 12$
18. $|2x - 6| < 0$
19. $|7 - 2y| - 8 \geq -3$

Answers

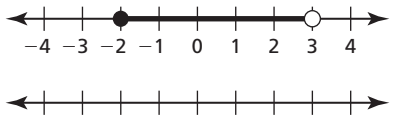
1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
   See left.
7. _____
   See left.
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
    See left.
15. _____
    See left.
16. _____
17. _____
18. _____
19. _____

Name _____ Date _____

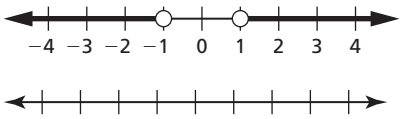
Chapter 2 Test A (continued)

Write and graph a compound inequality that represents the numbers that are not solutions of the inequality represented by the graph shown.

20.



21.



22. You need to write an essay that has at least 500 words. You have written 285 words so far. Write and solve an inequality that represents the number of words w that you have left to write.

23. You need at least 30 cubic feet of sand to fill a sand box. Each bag contains 2.5 cubic feet of sand. Write and solve an inequality that represents the number of bags b that you need to buy.

24. You are planning a school carnival. The equipment costs \$180 to rent. You plan to charge \$4.00 per ticket. You would like to have a profit of at least \$500. Write and solve an inequality that represents the number of tickets t that you need to sell.

25. You want to purchase a calculator for at most \$115. You have saved \$30 so far. You earn \$7.50 per hour at your job. Write and solve an inequality that represents the number of hours h that you need to work.

Answers

20. See left.

21. See left.

22.

23.

24.

25.