

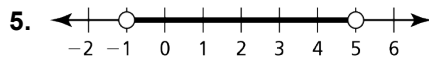
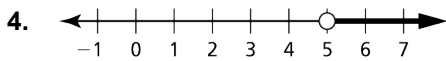
Write the sentence as an inequality.

1. The product of a number  $n$  and 2 is no less than 14.

2. The speed  $s$  on a highway is at most 60 miles per hour.

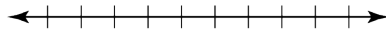
3. The length  $r$  of a rope should be at least 28 inches.

Write an inequality that represents the graph.

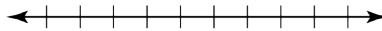


Solve the inequality. Graph the solution.

6.  $x + 5 \leq -2$



7.  $4q > -28$



Solve the inequality.

8.  $2k > 2k + 4$

9.  $4p < 6p + 12$

10.  $2.5w - 5 < 2w + 5$

11.  $5(p - 1) > 6p - 7$

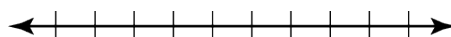
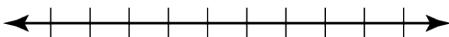
12.  $5n + 3 \geq 4 - (6 - 5n)$

13.  $5 - 2x < 4 - 2x + 3$

Solve the inequality. Graph the solution.

14.  $5 + 2y < 8$  or  $5y > 3y + 7$

15.  $7 < 12 + c < 13$



Solve the inequality.

16.  $-3p + 1 \leq -11$  or  $-0.5p > 12$

17.  $6 < 4 - w \leq 2w - 2$

**Answers**

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

See left.

7. \_\_\_\_\_

See left.

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_

11. \_\_\_\_\_

12. \_\_\_\_\_

13. \_\_\_\_\_

14. \_\_\_\_\_

See left.

15. \_\_\_\_\_

See left.

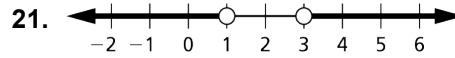
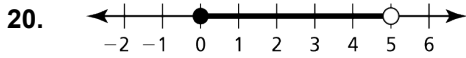
16. \_\_\_\_\_

17. \_\_\_\_\_

18. \_\_\_\_\_

19. \_\_\_\_\_

Write a compound inequality that represents the graph shown.



**Answers**

20. \_\_\_\_\_

22. You need to earn at least \$75. You earn \$6.00 for each hour you work. Write and solve an inequality that represents the number of hours  $h$  that you need to work.

21. \_\_\_\_\_

22. \_\_\_\_\_  
\_\_\_\_\_

23. \_\_\_\_\_  
\_\_\_\_\_

23. You need at least 150 cups of lemonade but less than 225 cups of lemonade for a picnic. Each batch of lemonade makes 25 cups of lemonade. Write and solve an inequality that represents the number of batches  $b$  you need to make.

24. \_\_\_\_\_  
\_\_\_\_\_

25. \_\_\_\_\_  
\_\_\_\_\_

24. You have a goal to practice the piano for an average of at least 50 minutes per day for one week. The first six days you practice a total of 245 minutes. Write and solve an inequality that represents the number of minutes  $m$  you need to practice on the seventh day.

25. The cost to rent a construction crane is \$1500 per day plus \$250 per hour of use. Write and solve an inequality that can be used to determine the maximum number of hours  $h$  the crane can be used if the rental cost for one day will not exceed \$5000.

Inequalities - Application  
Algebra 1

Mount Si High School Name: \_\_\_\_\_  
Fall 2015 Date: \_\_\_\_\_ Period: \_\_\_\_\_