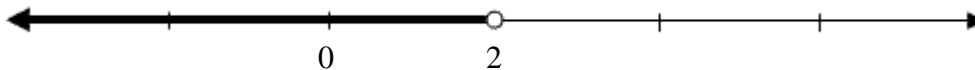


Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. Write an inequality that describes the graph.



2. Use words to describe the line graph.



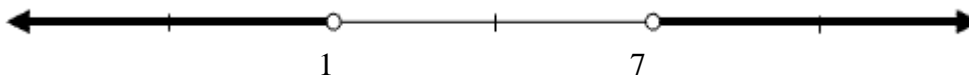
3. Create a line graph of the inequality.

$$x > -3$$

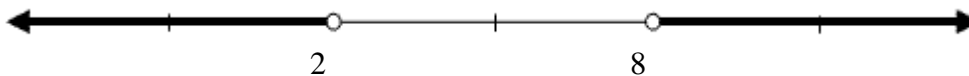
4. Write an inequality that describes the graph.



5. Write an inequality that describes the graph.



6. Use words to describe the line graph.



7. Solve the following compound inequality. Write the solution in interval notation.

$$9x < 9 \text{ and } x + 13 > 6$$

8. Solve the following compound inequality. Write the solution in interval notation.

$$x + 10 \geq 19 \text{ or } 5x \leq 20$$

9. Solve the following compound inequality. Write the solution in interval notation.

$$-8x > 32 \text{ and } x + 2 > 6$$

10. **Wages** The sales agent for a jewelry company is offered a flat monthly salary of \$3414 or a salary of \$1421 plus 10% commission on the selling price of each item sold by the agent.

If the agent chooses the \$3414, what dollar amount does the agent expect to sell in 1 month?

11. **Comparing Services** A computer bulletin board service charges a flat fee of \$13 per month or a fee of \$3 per month plus \$0.20 for each minute the service is used.

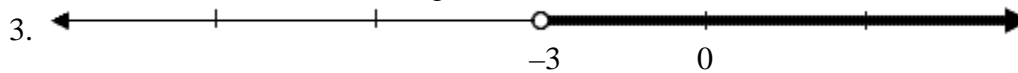
How many minutes must a person use this service to exceed \$13?

12. **Transportation** A shuttle service taking skiers to a ski resort charges \$10.00 per person each way. Four skiers are debating whether to take the shuttle bus or rent a car for \$41.00 plus \$0.25 per mile.

Assuming that the skiers will share the cost of the car and that they want the least expensive method of transport, find how far away the ski area is if they choose the shuttle service.

**Answer Key**

1.  $x < 2$
2.  $x$  is between 0 and 4, including 0 and 4



4.  $-1 < x < 3$
5.  $x < 1$  or  $x > 7$
6.  $x$  is less than 2 or greater than 8
7.  $(-7, 1)$
8.  $(-\infty, 4] \cup [9, \infty)$
9.  $\emptyset$
10.  $\leq \$19,930$
11.  $> 50$  min
12.  $> 78$  mi