Graphing Linear Inequalities

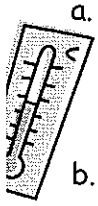
Homework

Name KEY

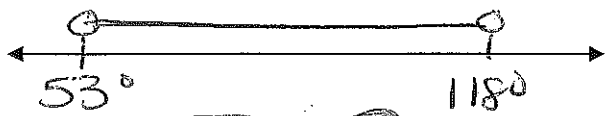
Date _____ Period _____

1. Write and graph an inequality that represents the given situation.

a. The temperatures in Plano are greater than 53°F and less than 118 °F in August.



X: temp $53 < X < 118$



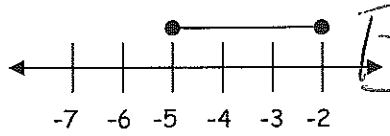
b. The typical caloric intake for a 15 year old boy is greater than 1,500 but no more than 3,000 calories.

C: calories $1500 < C \leq 3000$

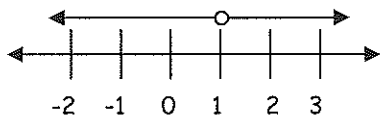
c. An elevator can run from 7 floors below the ground (- 7) to the 120th floor of a skyscraper.

f: floors $-7 \leq f \leq 120$

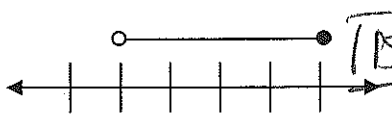
2. Write the inequality represented by the graph.

a. 

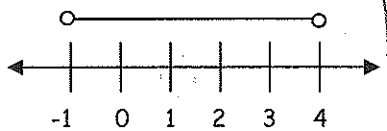
$-5 \leq X \leq -2$

b. 

$X \neq 1$

c. 

$15 < X \leq 19$

d. 

$-1 < X < 4$

3. Choose a graph from question 2, and write a situation that is represented by the graph.

C. I have more than 15 pens but Not more 19 pens in my desk.

4. Which is not a solution of the inequality $-2 < x \leq 4$?

A. 0 $-2 < 0 \leq 4$ true

B. -2 $-2 < -2 \leq 4$ false

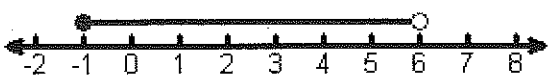
C. 1.5 $-2 < 1.5 \leq 4$ true

D. 4 $-2 < 4 \leq 4$ true

5. Which graph represents the solution of $-1 \leq x \leq 6$?

A.

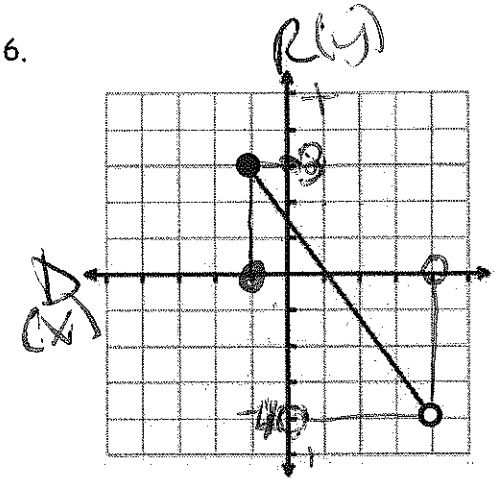
B.

C. 

D.

Write the domain and range using a compound inequality.

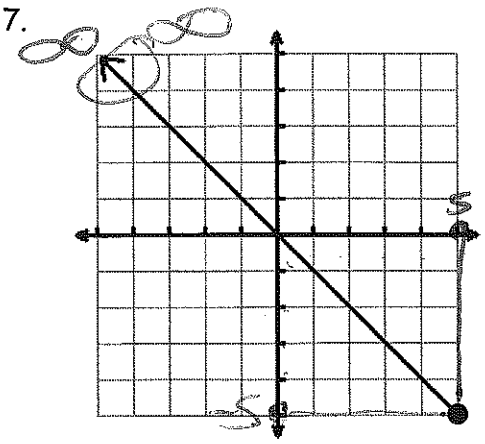
6.



Domain: $-1 \leq x < 4$

Range: $-4 < y \leq 3$

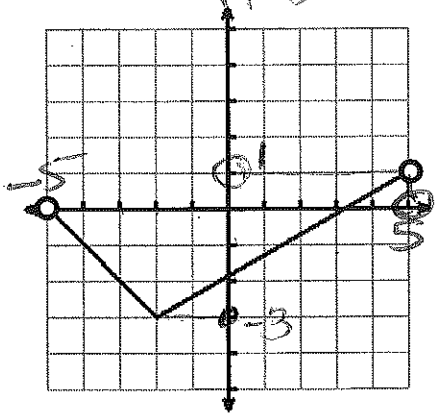
7.



Domain: $-\infty < x \leq 5$

Range: $-5 \leq y < \infty$

8.



Domain: $-5 < x < 5$

Range: $-3 \leq y < 1$