$\qquad$ Pd $\qquad$ Date $\qquad$
Directions: Turn in on the day of your quiz to earn +5 EXTRA CREDIT on your quiz. SHOW ALL WORK!
Write (in algebra) the inequality and graph the solution set.

1) All real numbers $h$ that are less than or equal to 5 . 2) All real numbers $g$ that are greater than -2 .

Rewrite the inequality with the variable first. Graph the solution set.
3) $5<r$
4) $10 \geq k$

Solve the inequality. Graph the solution set.
5) $4 x>-16$
6) $-\frac{k}{3} \leq-2$
7) $\frac{h}{2}<-5$
8) $-3 x \geq-9$
9) $x+5 \leq-4$
10) $-6+y>-15$
11) $7 \leq-\frac{w}{3}$
12) $12<4 d$

Which number is a solution of the inequality?
13) $7.1<x$
a. 5
b. -2.3
c. 10
d. 6.9
14) $-6.1>y$
a. -6
b. -6.5
c. -5.5
d. 5

Write and solve an inequality for each scenario.
15) Nina wants to save a minimum of 8 candies for later. She has already saved 3 . Write and solve an inequality for the possible number of candies, $c$, Nina still has to save.
16) Chris owes Devin $\$ 10$, but he is going to make some money raking leaves on neighbors' lawns over the weekend. He wants to end up with at least $\$ 50$ to keep. What is the acceptable range of money, $m$, he needs to make raking leaves?
17) Harry earns $\$ 8.50$ per hour working at his job after school. He wants to earn no less than $\$ 170$ in a week. What is the acceptable range of hours, $h$, he needs to work?
18) Kristen is splitting up all her hair ties based on color. She wants no more than 3 hair ties of any color. What is the possible range of how many hair ties, $t$, she should have if there are 8 different colors?

