Name _____

Date _____ Pd _____

INTRO TO INEQUALITIES

An equation uses an _____ sign to show that both sides are _____ .

An _____ shows that both sides may _____ be equal.

GREATER THAN	GREATER THAN OR EQUAL TO	LESS THAN	LESS THAN OR EQUAL TO

Use an inequality symbol to make each mathematical statement true.

| 4 ___ 9 | 0.5 ___ 0.45 | 3 ___ 6 | 1.04 ___ 1.4 |

INEQUALITIES

- Use the _____ as the starting point when reading an inequality statement.

Ex: $6 \leq x$ can be rewritten as _____

- A value can be substituted to determine if the inequality is correct.

Ex: $x + 6 > 11$, if $x = 5$ $7x < 45$, if $x = 6$

Determine whether the given value makes a true statement.

1. $k + 8 \geq 19$, if $k = 11$	2. $12 > f$, if $f = 3$	3. $c - 12 > 30$, if $c = 13$
4. $16 < b - 8$, if $b = 22$	5. $\dfrac{x}{12} \leq 3$, if $x = 48$	6. $10 + p \leq 20$, if $p = 5$

All the shaded numbers are true, or part of the _____.

GREATER THAN	GREATER THAN OR EQUAL TO	LESS THAN	LESS THAN OR EQUAL TO
◄————————►	◄————————►	◄————————►	◄————————►

Practice graphing the following inequalities.

7. $k > 11$ ◄—+—+—+—+—+—► 8 9 10 11 12	8. $12 \geq f$ ◄—+—+—+—+—+—► 10 11 12 13 14	9. $d < 6$ ◄—+—+—+—+—+—► 3 4 5 6 7
10. $c < 25$ ◄—+—+—+—+—+—► 15 20 25 30 35	11. $0 \leq b$ ◄—+—+—+—+—+—► -1 0 1 2 3	12. $x \geq 4.5$ ◄—+—+—+—+—+—► 3 4 5 6 7

Using each verbal expression below, write and graph an inequality.

13. The McDonald family spends no more than $150 for groceries each week. _____ ◄—+—+—+—+—+—►	14. Jerod earns at least $10 when mowing lawns. _____ ◄—+—+—+—+—+—►
15. Jazlynn must score higher than a 92 on her science test to make an A on her report card. _____ ◄—+—+—+—+—+—►	16. It takes Alex fewer than 15 minutes to walk to school. _____ ◄—+—+—+—+—+—►

17. Callie says that the graph for the inequality $5 \geq w$ will be the same as the graph for the inequality $w \geq 5$. Do you agree or disagree? Justify your reasoning.
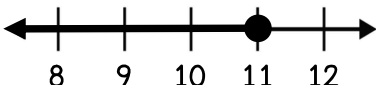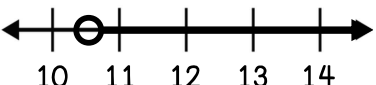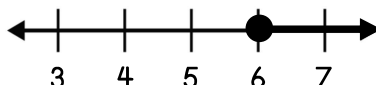
_____

_____

_____

Summarize today's lesson:
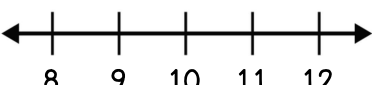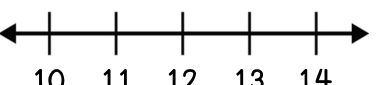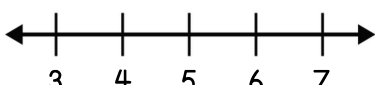
Name _____

Date _____ Pd _____

INTRO TO INEQUALITIES

Substitute each variable to determine whether the inequality statement is true or false.

1. $k + 12 \geq 20$, if $k = 15$	2. $16 > f$, if $f = 17$	3. $q > d$, if $d = 3$
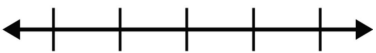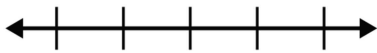
Write an inequality for each solution set graphed below.

4. _____	5. _____	6. _____
8 9 10 11 12	10 11 12 13 14	3 4 5 6 7

Practice graphing the following inequalities.

7. $k \leq 8$	8. $13.5 \geq f$	9. $d < 4$
8 9 10 11 12	10 11 12 13 14	3 4 5 6 7

Based on each verbal expression below, write and graph an inequality.

10. The Parkland Zoo has a maximum capacity of 350 visitors, *v*. _____	11. Trina must spend at least 45 minutes, *m*, studying for her test. _____

12. Mrs. Galloway asked her students to write an inequality statement and a value that makes the inequality true. Circle the name of the student who did this correctly.

JEB	ALIZA	ANGELO
$a - 12 > 10$, if $a = 22$	$35 > 4x$, if $x = 7$	$\dfrac{x}{5} \geq 10$, if $x = 15$