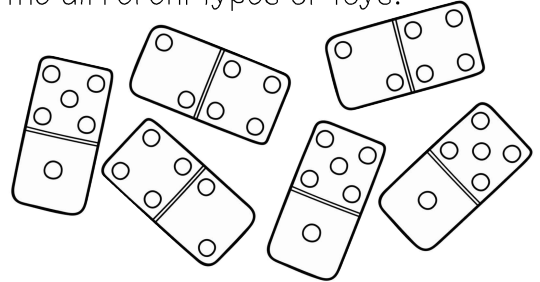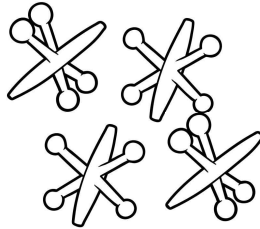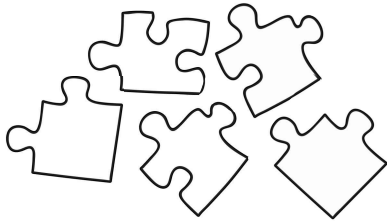Name _____

Date _____ Pd _____

STATEMENTS OF INEQUALITY

Mrs. Sears was organizing the toys in her children's playroom. She grouped them into categories, as shown below. Write two inequality statements comparing the different types of toys.
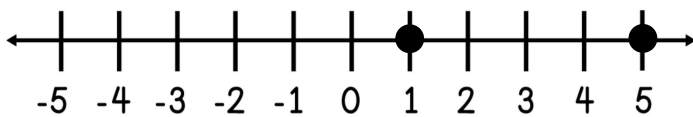
#1: _____

#2: _____

INEQUALITY STATEMENTS

- Inequality statements _____ two values in comparison to one another. They also describe the _____ of the numbers on the number line and can be written algebraically and verbally.

- Ex: $0 < 5$ _____

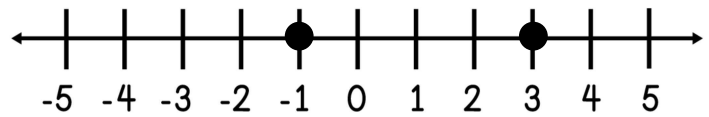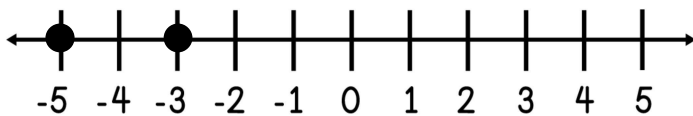Write two algebraic inequality statements for the number lines shown below.

1.

-5 -4 -3 -2 -1 0 1 2 3 4 5

a. _____

b. _____

2.

-5 -4 -3 -2 -1 0 1 2 3 4 5

a. _____

b. _____

3.

-5 -4 -3 -2 -1 0 1 2 3 4 5

a. _____

b. _____

4.

-5 -4 -3 -2 -1 0 1 2 3 4 5
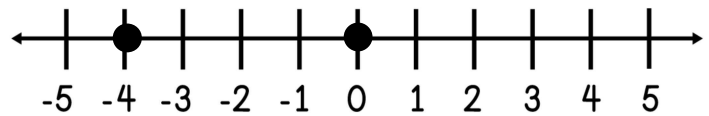
a. _____

b. _____

Use your understanding of statements of inequality to answer the questions below.

5. Translate each inequality to a written statement below:

a. -15 < -3 _____

b. -3 < 8 _____
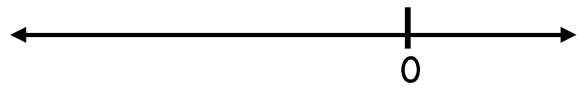
c. -9 > -21 _____

d. -1 > -2 _____

6. Graph each of the points on the open number line below. Then, write an algebraic and verbal description of their position.

| -3 | | -9 |

algebraic: _____   verbal description: _____

7. Keira wrote the statement "3.7 is located to the left of $\frac{15}{4}$." Shade the inequality statements that correctly match her verbal expression.
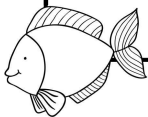
| $3.7 < \frac{15}{4}$ | | $3.7 > \frac{15}{4}$ | | $\frac{15}{4} > 3.7$ | | $\frac{15}{4} < 3.7$ |

8. Paul says that when comparing two numbers, the smaller number is always going to be placed on the number line to the left of the larger number. Do you agree or disagree? Justify your thinking.

9. Draw a line connecting the situation to the matching inequality statement.

| John is 50 ft above sea level and Talyn is 100 ft below sea level. | The temperature is negative 50° in Alaska and 100° in Boston. | Aaliya's kite is 100 ft in the air and Leah's kite is 50 ft in the air. |

| 50 < -100 | 50 > -100 | 100 > 50 | -50 < 100 |

Summarize today's lesson: