

## HW 4.1 in Inequalities Unit

Date \_\_\_\_\_ Period \_\_\_\_\_

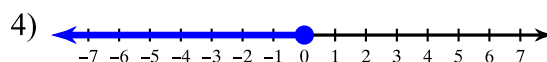
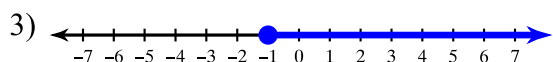
For all questions, assume we are talking about all the numbers you know about, not just the integers.

Draw a graph for each inequality. Make your own number line with at least 4 labeled points.

1)  $x \leq -5$

2)  $p > -3$

Write an inequality for each graph.



5)  $2x + 5 < 10$

6)  $\frac{x}{3} - 2 < 0$

7)  $3p + 1 < 4p - 6$

8)  $\frac{2n + 1}{5} < 5$

9) How many solutions are there to the inequality  $x < 3$ ?

10) Which of the following #s are in the solutions set for the inequality statement "n is at least 10 but not more than 13?". Circle those that are in the solution set.

0, 1, 2, 3, 10, -10,  $25/2$ , 12.9, -12.9, 13, 13.1, 13.111, 15, 97, 1056,  $10/3$

(Stuck? For each # ask yourself: does this # make the statement "n is at least 10 but not more than 13" true? You should notice patterns that will allow you to eliminate many at a time).

11) Video 4.1 mentioned a connection between inequalities and the term "variable", please explain it in your own words. (You may explain generally or in terms of a specific inequality statement of your choice).