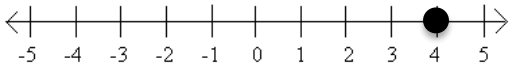
Grade 6 Math Name: _____

Date: _____ Core/Period: _____

Graphing Equations and Inequalities on Number Lines Guided Notes With Answers

Graphing an Equation on a Number Line:

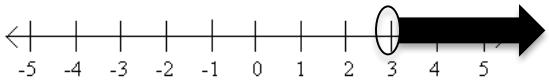
(equal) **X = 4**



The value of x, which is 4, is represented by a darkened point at 4 to the right of 0 on the number line.

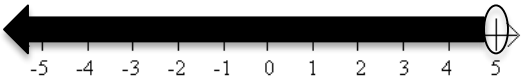
Graphing Inequalities on a Number Line:

(greater than) **Y > 3**



The value of y, which is any number greater than 4, is represented by an open circle at 3 to the right of zero with an arrow pointing to right on the number line. An open circle means it cannot equal that value, and the arrow (ray) pointing to the right means that it can be any value greater than the number that is circled.

(less than) **Z < 5**



The value of z, which is any number less than 5, is represented by an open circle at 5 to the right of zero with an arrow pointing to left on the number line. An open circle means it cannot equal that value, and the arrow (ray) pointing to the left means that it can be any value less than the number that is circled.

(greater than or equal) **W ≥ -2**

The value of w, which is equal to -2 and any number greater than -2, is represented by a point at 2 to the left of zero with an arrow pointing to right on the number line. The point means it equals that value, and the arrow (ray) pointing to the right means that it can be any value greater than the number where the point is located as well.

(less than or equal) **V ≤ 1**

The value of v, which is equal to 1 and any number less than 1, is represented by a point at 1 to the right of zero with an arrow pointing to left on the number line. The point means it equals that value, and the arrow (ray) pointing to the left means that it can be any value less than the number where the point is located as well.