Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table #: \_\_\_\_\_\_\_ Period: \_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_

**4.1B Graphing Inequalities\_Classwork**

*Objective: graph and identify equation and inequalities as points and rays on a number line.*

*HW: textbook: 4.1B pg 128\_#17-25 ALL*

The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of an inequality shows all of the solutions of the inequality on a number line.

* An open circle \_\_\_\_\_\_\_\_\_ is used when a number is not a solution
* A closed circle \_\_\_\_\_\_\_\_\_ is used when a number is a solution.
* An arrow to the left or right shows that the graph continues in that direction.

|  |  |  |  |
| --- | --- | --- | --- |
| $$<$$**Open Circle** | $$>$$**Open Circle** | $$\geq $$**Closed Circle** | $$\leq $$**closed Circle** |

Draw a graph for each inequality.

|  |  |
| --- | --- |
| 1. | 2. |
| 3. | 4. |
| 5.  | 6. |
| 7.  | 8. |

Write an inequality for each graph.

|  |  |
| --- | --- |
| 1. | 2. |
| 3. | 4. |
| 5. | 6. |

**WARM-UP**

Tell whether the given value is a solution of the inequality. Write TRUE or FALSE after you solve each problem.

|  |  |  |
| --- | --- | --- |
| 1. $2k-4<7; k=5$
 | 1. $\frac{w}{4}\geq w-12; w=20$
 | 1. $8-y>2y; y=-1$
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