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| --- | --- | --- | --- |
| Inequality sign | Meaning | Example | Meaning |
|  | Less than or equal to | X 5 | X is less than or equal to 5. |
|  | Greater than or equal to | X -7 | X is greater than or equal to -7. |
|  | Less than | X -3 | X is less than -3 |
|  | Greater than | X 6 | X is greater than 6. |

Match each of the inequalities above with the appropriate graph.

|  |  |
| --- | --- |
| Solution set:  Is 5 a solution to this inequality? \_\_\_\_\_\_\_\_  What do you notice about the dot on the number line (open or closed)?  What do you notice about the direction of the arrow in comparison the the inequality sign? | Solution set:  Is -20 a solution to this inequality? \_\_\_\_\_\_\_\_  What do you notice about the dot on the number line (open or closed)?  What do you notice about the direction of the arrow in comparison the the inequality sign? |
| Solution set:  Is 9 a solution to this inequality? \_\_\_\_\_\_\_\_  What do you notice about the dot on the number line (open or closed)?  What do you notice about the direction of the arrow in comparison the the inequality sign? | Solution set:  Is -2 a solution to this inequality? \_\_\_\_\_\_\_\_  What do you notice about the dot on the number line (open or closed)?  What do you notice about the direction of the arrow in comparison the the inequality sign? |

Graph the following inequalities:

1) X > 4

Is the solution open dot or closed dot?

Why?

2) X < 4

Is the solution open dot or closed dot?

Why?

3) X 4

Is the solution open dot or closed dot?

Why?

4) X 4

Is the solution open dot or closed dot?

Why?