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| --- | --- | --- | --- |
| Inequality sign | Meaning | Example | Meaning |
| $$\leq $$ | Less than or equal to | X $\leq $5 | X is less than or equal to 5. |
| $$\geq $$ | Greater than or equal to | X $\geq $-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 $\geq $ 4

Is the solution open dot or closed dot?

Why?

4) X $\leq $4

Is the solution open dot or closed dot?

Why?