

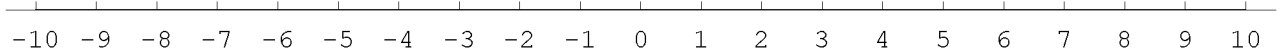
Name _____

[07-08-31-T10]

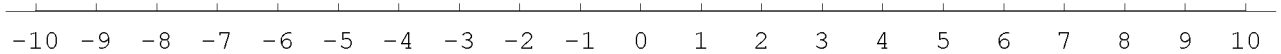
Interval notation

■ **A. Write the solution set of each inequality using (a) set builder notation and (b) interval notation. Then (c) graph each solution set. Answer on this sheet.**

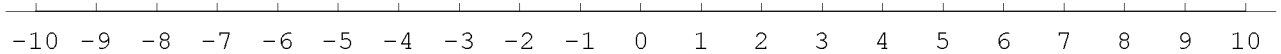
[1] $x > 2$



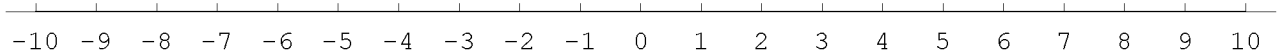
[2] $x < 5$



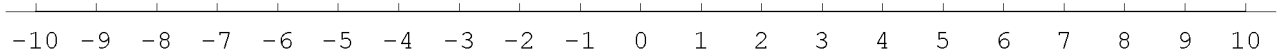
[3] $x \leq 2$



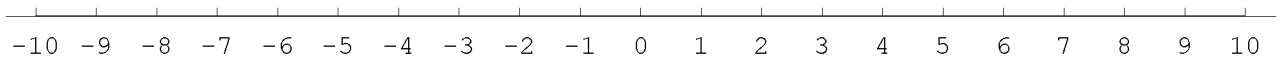
[4] $x \geq -5$



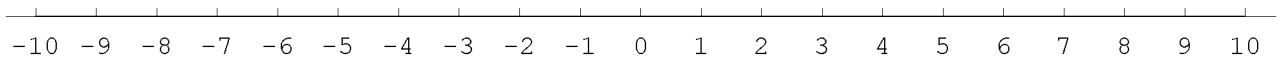
[5] $-5 < x$ and $x \leq 3$



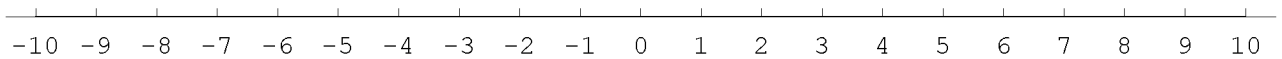
[6] $3 < x < 7$



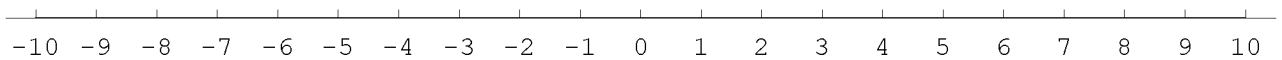
[8] $-9 < x \leq -2$



[9] $x < -3$ or $x > 2$



[10] $x < -3$ and $x > 2$

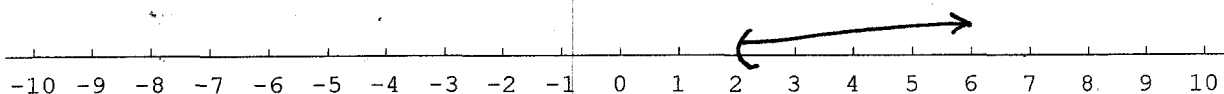


[07-08-31-T10]

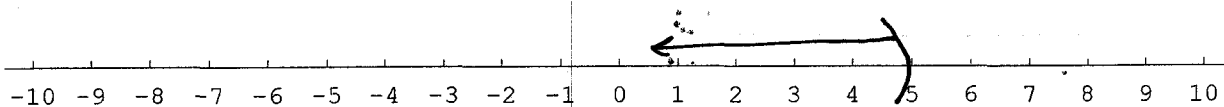
Interval notation

- A. Write the solution set of each inequality using (a) set builder notation and (b) interval notation. Then (c) graph each solution set. Answer on this sheet.

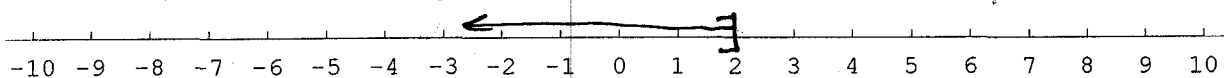
[1] $x > 2$ $\{x \in \mathbb{R}, x > 2\}$, $(2, \infty)$



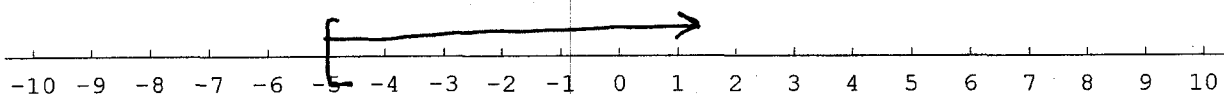
[2] $x < 5$ $\{x \in \mathbb{R}, x < 5\}$, $(-\infty, 5)$



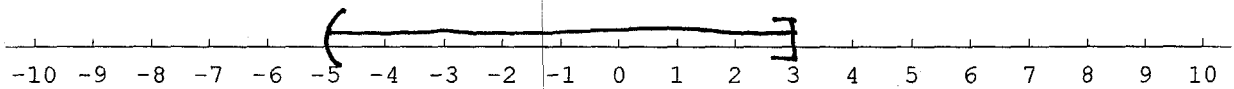
[3] $x \leq 2$ $\{x \in \mathbb{R}: x \leq 2\}$, $(-\infty, 2]$



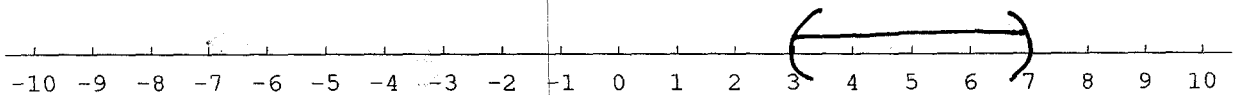
[4] $x \geq -5$ $\{x \in \mathbb{R}: x \geq -5\}$, $[-5, \infty)$



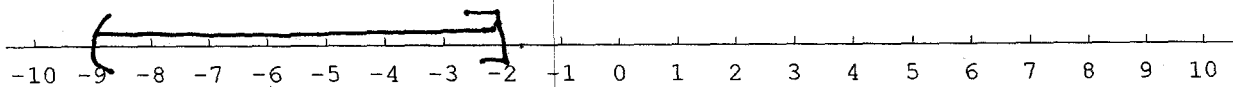
[5] $-5 < x$ and $x \leq 3$ $\{x \in \mathbb{R} : -5 < x \leq 3\}$, $(-5, 3]$



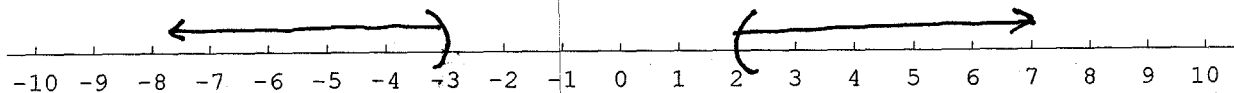
[6] $3 < x < 7$ $\{x \in \mathbb{R} : 3 < x < 7\}$, $(3, 7)$



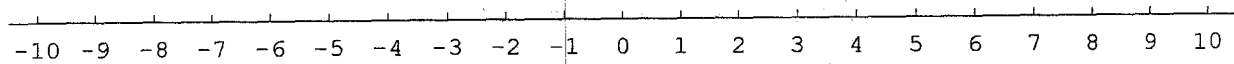
[8] $-9 < x \leq -2$ $\{x \in \mathbb{R} : -9 < x \leq -2\}$, $(-9, -2]$



[9] $x < -3$ or $x > 2$ $\{x \in \mathbb{R} : x < -3\} \cup \{x \in \mathbb{R} : x > 2\}$, ~~\mathbb{R}~~
 $(-\infty, -3) \cup (2, \infty)$



[10] $x < -3$ and $x > 2$ $\{x \in \mathbb{R} : x < -3\} \cap \{x \in \mathbb{R} : x > 2\} = \emptyset$



No number is simultaneously to the left of -3 and to the right of 2.