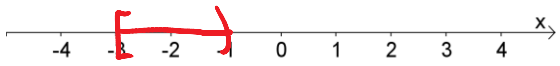
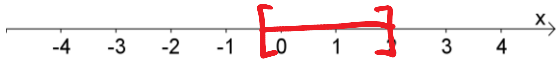
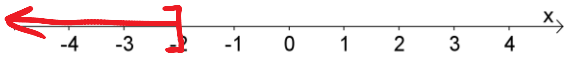
2.8 – Practice

1. Fill in the table:

Interval Notation	Inequality	Graph
$[-1, 2)$	$-1 \le x < 2$	
$[-3, -1)$	$-3 \le x < -1$	
$(0, \infty)$	$x > 0$	
$\left[-\frac{1}{3}, 2\right]$	$-\frac{1}{3} \le x \le 2$	
$(-\infty, -2]$	$x \le -2$	

2. Solve $5(x-3) - 7x \ge 4(x-3) + 9$, and graph the solution set. (Write your solution in interval notation.)

$5x - 15 - 7x \ge 4x - 12 + 9$

$-2x - 15 \ge 4x - 3$

$+2x \qquad +2x$

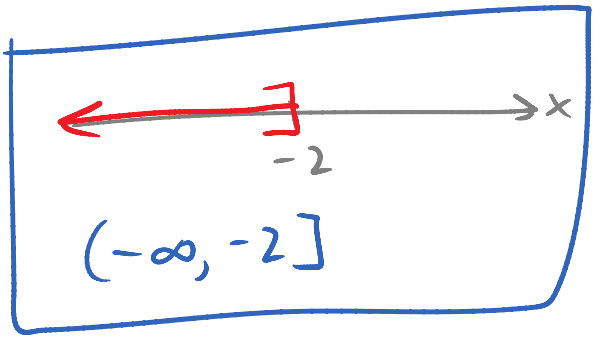
$-15 \ge 6x - 3$

$+3 \qquad +3$

$\frac{-12}{6} \ge \frac{6x}{6}$

$-2 \ge x$

$x \le -2$

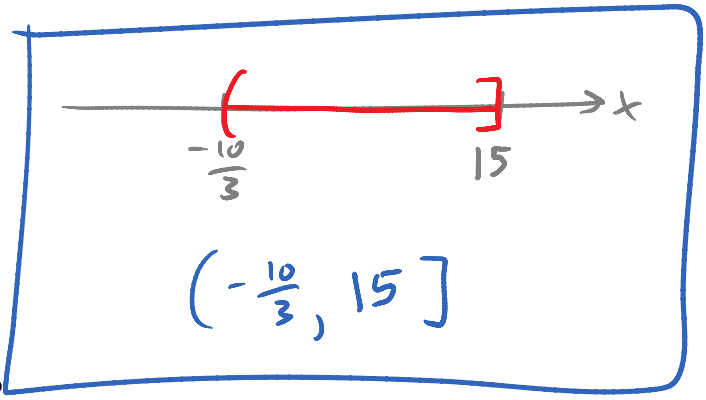


3. Solve $-3 < \frac{3}{5}x - 1 \le 8$, and graph the solution set.

$+1 \qquad +1 \qquad +1$

$\frac{5}{3} \cdot (-2) < \frac{5}{3} \cdot \frac{3}{5} x \le \frac{5}{3} \cdot 9$

$-\frac{10}{3} < x \le 15$



Q: What goes around the world but stays in a corner?