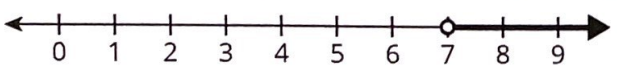
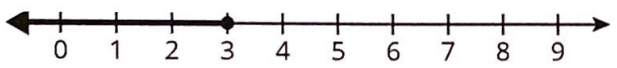
PROBLEM SET 5: Graphing and Solving Inequalities

Write the inequality represented by the given graph.

1. 

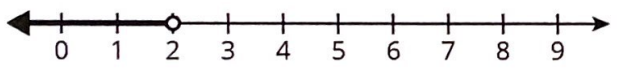
$x > 7$

$x = 8, 9, 10 \ldots$

2. 

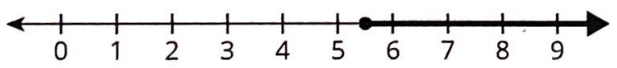
$x \leq 3$

$x = 3, 2, 1, 0 \ldots$

3. 

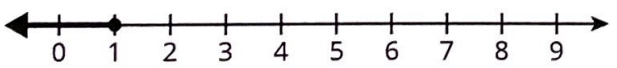
$x < 2$

$x = 1, 0 \ldots$

4. 

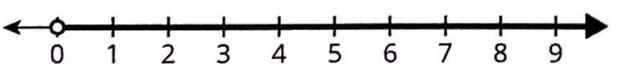
$x \geq 5.5$

$x = 6, 7, 8 \ldots$

5. 

$x \leq 1$

$x = 0, -1, -2 \ldots$

6. 

$x > 0$

$x = 1, 2, 3 \ldots$

$> \quad < \quad \Rightarrow$ ○

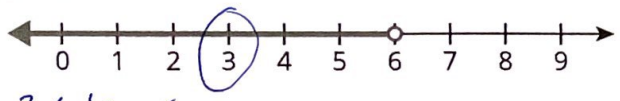
$\geq \quad \leq \quad \Rightarrow$ ●

* List the variable first then the graphed arrow will point the same direction as the inequality arrow

$x \geq 7$

Graph the solution set for each given inequality.

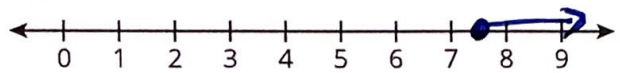
7. $x < 6$



$3 < 6$ ✓

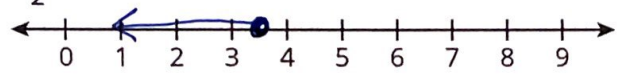
★ pick a number your line goes towards and see if it makes your inequality true

8. $x \geq 7.5$



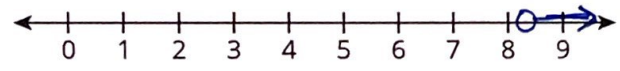
$9 \geq 7.5$ ✓

9. $3\frac{1}{2} \geq x$



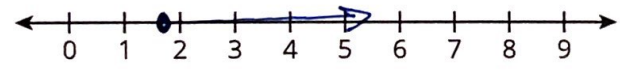
$3\frac{1}{2} \geq 2$ ✓

10. $x > 8.25$



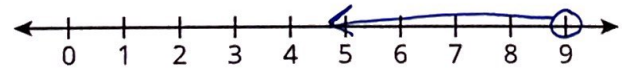
$9 > 8.25$ ✓

11. $1.8 \leq x$



$1.8 \leq 4$

12. $x < 9$



$6 < 9$