SC Algebra 1
6.4 Solving Absolute Value Inequalities – Guided Notes

Warm Up:

Solve each equation.

1. $|x| = 4$

2. $|x - 3| = 7$

3. $|x + 2| = 3$

4. $|2x + 8| = 10$

Example 1: Solving Inequalities Involving < and Absolute Value

Solve and then graph the solution set.

a) $|m + 5| < 3$

b) $|m - 7| < 7$

c) $|x + 4| < 6$

Example 2: Absolute Value Inequalities (<) with No Solutions

a) $|n - 1| < -5$

b) $|n + 11| < -13$

Example 3: Solve Absolute Value Inequalities (>)
Solve each inequality. Then, graph the solution set.

a) $|2m - 9| > 13$

b) $|3m + 12| \geq 15$

c) $|n - 6| \geq -5$

THIS IS A SPECIAL CASE:
Overlapping Intervals