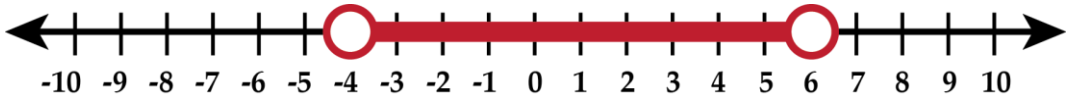
WORKSHEET 2.3 – Solving Compound Linear Inequalities

Name: _____ Hour: _____ Date: _____

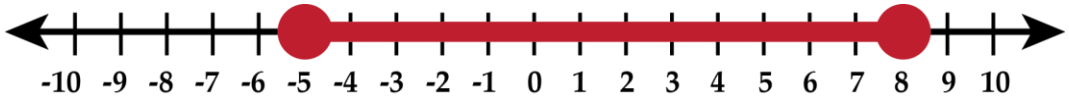
SECTION 1: Solve each "and" compound linear inequality, then graph it. (2.3.A)

1) $-8 < 2x < 12$



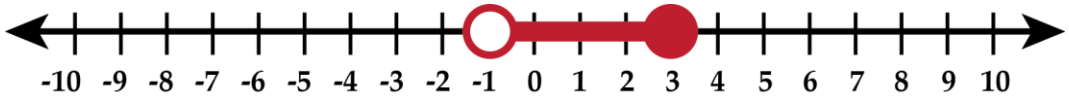
$-4 < x < 6$

2) $-6 \le x - 1 \le 7$



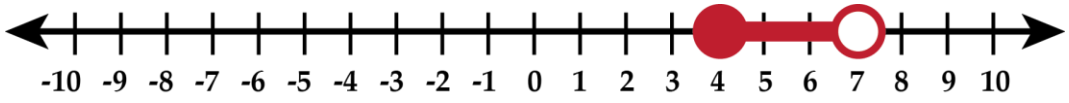
$-5 \le x \le 8$

3) $-7 < 3x - 4 \le 5$



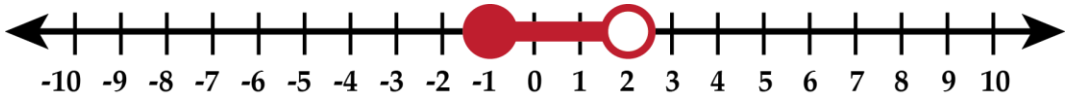
$-1 < x \le 3$

4) $27 \le 8x - 5 < 51$



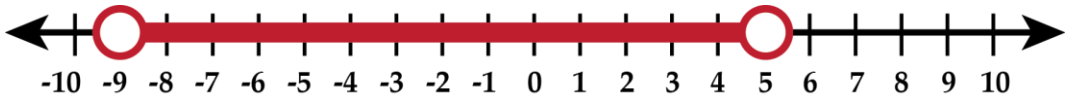
$4 \le x < 7$

5) $-5 < 7 - 6x \le 13$



$-1 \le x < 2$

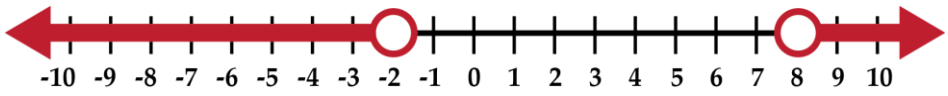
6) $-9 < -4x + 11 < 47$



$-9 < x < 5$

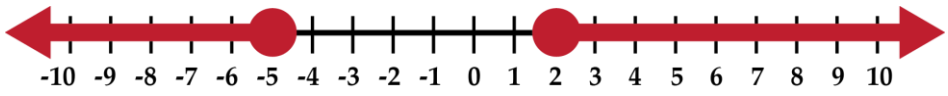
SECTION 2: Solve each "or" compound linear inequality, then graph it. (2.3.A)

7) $x + 6 < 4$ or $x - 5 > 3$



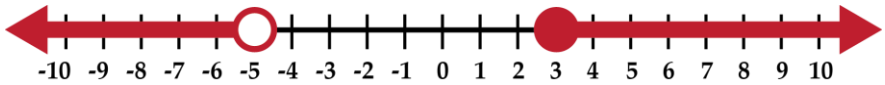
$x < -2$ or $x > 8$

8) $2x + 7 \leq -3$ or $3x - 1 \geq 5$



$x \leq -5$ or $x \geq 2$

9) $8x + 19 < -21$ or $7x + 13 \geq 34$

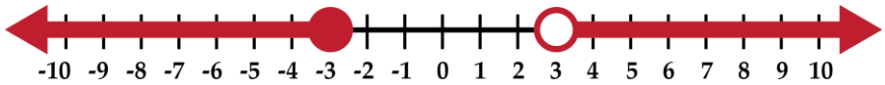


$x < -5$ or $x \geq 3$

10) $3 - 2x \leq 7$ or $6 - x > 11$

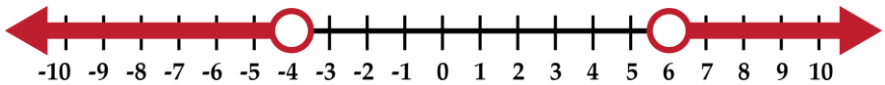
$x < -5$ or $x \geq -2$

11) $-4x + 7 < -5$ or $-3x + 1 \geq 10$



$x \leq -3$ or $x > 3$

12) $63 - 8x < 15$ or $-7x + 39 > 67$



$x < -4$ or $x > 6$