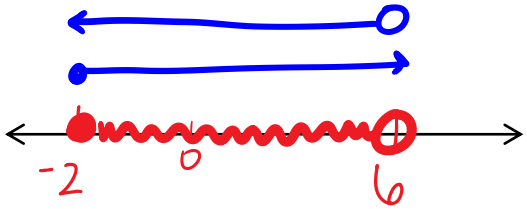
Unit 2 Day 19 Homework

Solving Compound Inequalities with Interval Notation

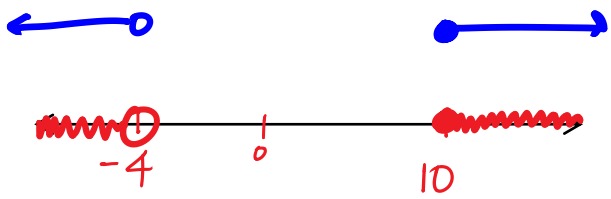
Graph the inequality and write the final solution in interval notation.

1) $-2 \le x < 6$



Interval Notation: $[-2, 6)$

2) $x < -4$ OR $x \ge 10$



Interval Notation: $(-\infty, -4) \cup [10, \infty)$

Solve the inequality, graph, and write the final solution in interval notation.

3) $-11 \le x + 1 < 9$

$-1 \quad -1 \quad -1$

$-12 \le x < 8$

Interval Notation: $[-12, 8)$

4) $x + 1 < 6$ OR $x - 3 \ge 5$

$-1 \quad -1 \quad +3 \quad +3$

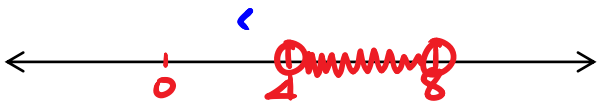
$x < 5$ OR $x \ge 8$

Interval Notation: $(-\infty, 5) \cup [8, \infty)$

5) $16 < 4x < 32$

$\frac{}{4} \quad \frac{}{4} \quad \frac{}{4}$

$4 < x < 8$



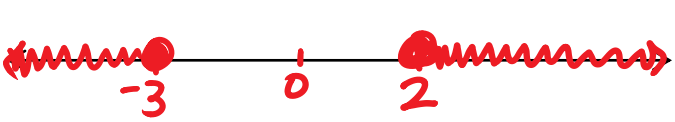
Interval Notation: $(4, 8)$

6) $-3x \ge 9$ OR $x + 6 \ge 8$

Flip the sign!!

$\frac{}{-3} \quad \frac{}{-3} \quad -6 \quad -6$

$x \le -3$ OR $x \ge 2$



Interval Notation: $(-\infty, -3] \cup [2, \infty)$

Rate yourself! Which emoji best describes how you feel about writing compound inequalities using interval notation??


☐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Why?? I Love inequalities and interval notation!! ★