3.3: Solving inequalities using multiplication and division

When you multiply by a positive number you do NOT change the signs.

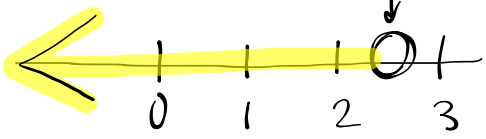
When you multiply or divide by a negative number you MUST flip the sign.

EX.) $2x + 3 < 8$

$-3 \quad -3$

$2x < 5$

$x < \frac{5}{2} \approx 2.5$



EX.) $-4x - 6 \geq 12$

$+6 \quad +6$

$-4x \geq 18$

$\frac{-4x}{-4} \geq \frac{18}{-4}$ ← negative

neg

$x \leq \frac{-9}{2} \approx -4.5$

change signs