

Aim: How do we solve inequalities with negative coefficients? Date _____

Do now: Solve and check the inequalities.

$$4m < 20$$

$$-4m < 20$$

Rule: _____

Solve/Graph the inequality.

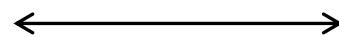
$$1.) \quad -2x \leq 8$$



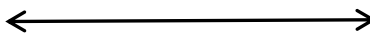
$$2.) \quad -x < -9$$



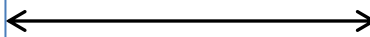
$$3.) \quad 16 \geq -4x$$



$$4.) \quad -2x + 6 > -24$$



$$5.) \quad \frac{n}{-3} - 12 \leq -8$$

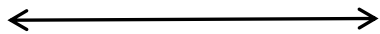


$$6.) \quad 4 - 3x \geq 10$$

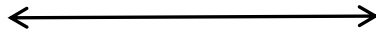


Solve/Graph the inequality.

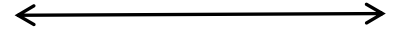
7.) $7x + 3 - 10x > 24$



8.) $2(x - 5) < 4x + 6$



9.) $3(x + 2) \leq 5(x - 1)$



Practice

Solve each inequality. Graph the solution.

$3m - 7 < 2$	$-13 \leq -5r + 2$
$2k + \frac{1}{3} > 1$	$4.3 - 1.5c \leq 10$
$2(b - 4) > -6$	$-8(p + 3) \leq 16$

$$15 \geq \frac{5}{3}(d - 6)$$

$$3.4 < 0.4(a + 12)$$

$$3x - 7x + 2 < 10 - 12$$



When multiplying or dividing each side of an inequality by a _____, you must

_____.