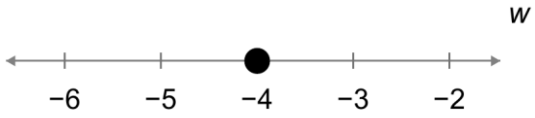
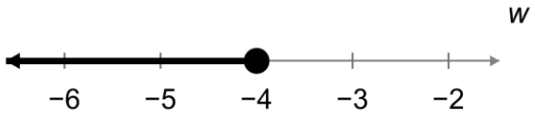
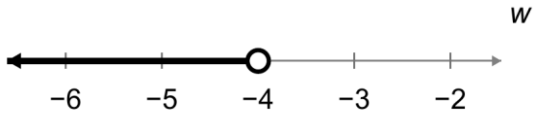
From one point to a ray

Inspect before you think. Think before you write. Write before you answer. Explain how you know.

An inequality describes a condition, such as a spending limit. Its solutions are ALL values that make it true.

1 Change only the comparison symbol

Multiplying or dividing BOTH sides by a positive number keeps the comparison symbol.

Equation	Inequality including the boundary	Inequality excluding the boundary
$3w = -12$	$3w \leq -12$	$3w < -12$
$\frac{3w}{3} = \frac{-12}{3}$	$\frac{3w}{3} \leq \frac{-12}{3}$	$\frac{3w}{3} < \frac{-12}{3}$
$w = -4$	$w \leq -4$	$w < -4$
		
One solution: −4.	−4 and every smaller value.	Every value smaller than −4.

For these inequalities, the related equation locates the boundary.
The solved inequality tells which side works and whether to include the boundary.

Filled dot: include the boundary. Open dot: exclude it. A bold ray shows all values that work and continues past its arrow.

< less than ≤ less than or equal to > greater than ≥ greater than or equal to

Check why the boundary matters

For 3w < −12, circle ALL values of w that work:

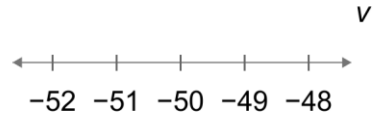
−5 −4 −3

Check w = −4 in the ORIGINAL inequality.
Show the substitution; then write true or false.

2 With your teacher

$$\frac{v}{5} \leq -10$$

Show the operation and solution on the left.
Mark the endpoint and draw the ray on the right.



Today's practice is on the back of this sheet. No ALEKS assignment today.

TOPIC ID: 23A-C1	TOPIC TITLE: Multiplicative property of inequality	
NAME:	BLOCK:	DATE: October 7, 2026

FORESTHILL HIGH SCHOOL

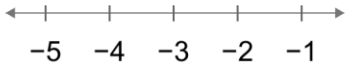
LEARNING PAPER EVIDENCE

Solve each inequality and graph its solution

LEFT: show the operation on BOTH sides, then the complete solution.
RIGHT: mark the boundary with a filled dot for ≤ or ≥, or an open dot for < or >.
Draw a bold ray through the values that work, with an arrow showing it continues.

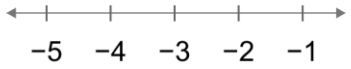
3 $2a \leq -6$

a



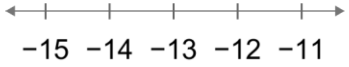
4 $2b < -6$

b



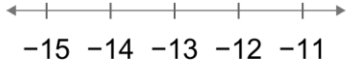
5 $\frac{c}{4} \geq -3$

c



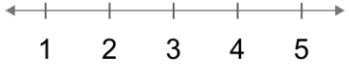
6 $\frac{d}{4} > -3$

d



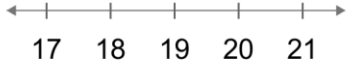
7 $5p \geq 15$

p



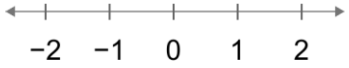
8 $\frac{q}{3} < 6$

q



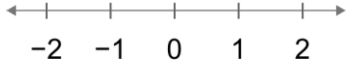
9 $6r > 0$

r



10 $\frac{s}{2} \leq 0$

s



The ray includes all values between ticks. Keep your first attempt visible when you correct it.