

Try It

Solve the inequality. Graph the solution.

1. $n \div 3 < 1$
 $\cdot 3$

$n < 3$



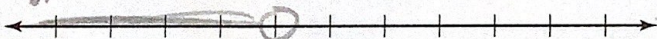
2. $-0.5 \leq \frac{m}{10}$
 $\cdot 10$

$-5 \leq m$ $m \geq -5$



3. $-3 > \frac{2}{3}p$
 $\cdot \frac{3}{2}$

$-4\frac{1}{2} > p$ $p < -4\frac{1}{2}$



Example 2 Solving an Inequality Using Division

Solve $6x > -18$. Graph the solution.

$6x > -18$

Write the inequality.

Undo the multiplication.

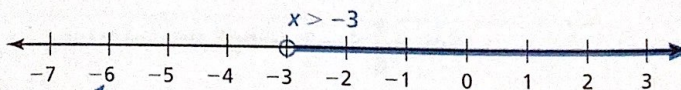
$\frac{6x}{6} > \frac{-18}{6}$

Division Property of Inequality

$x > -3$

Simplify.

▶ The solution is $x > -3$.



$x = -6$ is not a solution.

$x = 0$ is a solution.

Try It

Solve the inequality. Graph the solution.

4. $4b \geq 2$
 $\cdot 4$

$b \geq \frac{1}{2}$



5. $12k \leq -24$
 $\cdot 12$

$k \leq -2$



6. $-15 < 2.5q$
 $\cdot 2.5$

$-6 < q$



* When you multiply or divide by a negative, FLIP the inequality

Try It

Solve the inequality. Graph the solution.

7. $\frac{x}{-3} > -4$
 $\cdot -3$
 $x > 12$
 FLIP!
 $x < 12$

8. $0.5 \leq \frac{-y}{2}$
 $\cdot -2$
 $-1 \geq y$
 FLIP!

9. $-12 \geq \frac{6}{5}m$
 $\div \frac{6}{5}$
 $-10 \geq m$

10. $-\frac{2}{5}h \leq -8$
 $\div -\frac{2}{5}$
 $h \leq 20$
 $h \geq 20$

In-Class Practice

1 I don't understand yet.

2 I can do it with help.

3 I can do it on my own.

4 I can teach someone else.

11. **OPEN-ENDED** Write an inequality that you can solve using the Division Property of Inequality where the direction of the inequality symbol must be reversed.

5 MTR

12. **STRUCTURE** Explain how solving $4x < -16$ is different from solving $-4x < 16$.