Name _____ Date _____

4.4 Practice

For use after Lesson 4.4

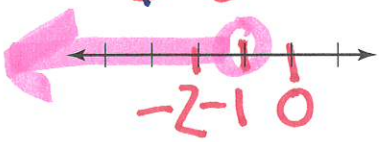
Solve the inequality. Graph the solution.

1. $5 - 3x > 8$

$-5 \quad -5$

$\frac{-3x}{-3} > \frac{3}{-3}$

$x < -1$ ↑ FLIP

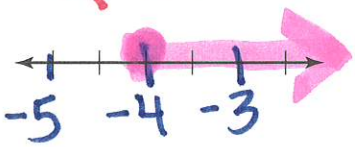


2. $-4x - 7 \leq 9$

$+7 \quad +7$

$\frac{-4x}{-4} \leq \frac{16}{-4}$

$x \geq -4$ ↑ FLIP



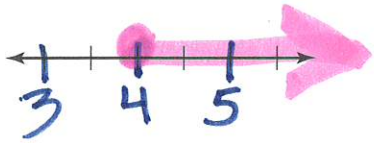
3. $3 + 4.5x \geq 21$

$-3 \quad -3$

$\frac{4.5x}{4.5} \geq \frac{18}{4.5}$

$4.5 \overline{)18.0}$ → 4

$x \geq 4$



4. $-2y - 5 > \frac{5}{2}$

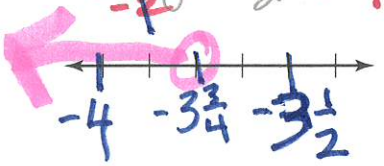
$+5 \quad +5$

$\frac{-2y}{-2} > \frac{15}{2} \div \frac{-2}{1} \rightarrow y > \frac{15}{2}\left(\frac{-1}{2}\right) = -\frac{15}{4}$

$\frac{5}{2} + \frac{10}{2} = \frac{15}{2}$

$4 \overline{)15}$ R 3

$y < -3\frac{3}{4}$ ↑ FLIP!

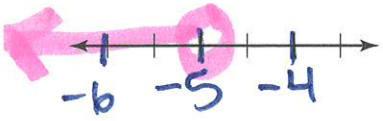


5. $2(y - 4) < -18$

$\frac{2(y-4)}{2} < \frac{-18}{2}$

$y - 4 < -9 \rightarrow y < -5$

$+4 \quad +4$



6. $-6 \geq -6(y - 3)$

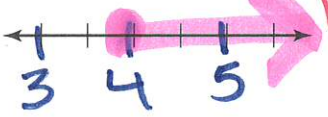
$\frac{-6}{-6} \leq \frac{-6(y-3)}{-6}$

$1 \leq y - 3$

$+3 \quad +3$

$4 \leq y$ OR $y \geq 4$

↑ Flip



7. You borrow $200 from a friend to help pay for a new laptop computer. You pay your friend back $12 per week. Write and solve an inequality to find when you will owe your friend less than $60.

$200 - 12w < 60$

$-200 \quad -200$

$\frac{-12w}{-12} < \frac{-140}{-12}$

$w \geq 11\frac{2}{3}$ weeks ↑ FLIP!

$12 \overline{)140}$ R 8 → $11\frac{8}{12} = 11\frac{2}{3}$

12

20

12

8

Copyright © Big Ideas Learning, LLC
All rights reserved.