12.7 Solving 2-Step Inequalities

p. 704 2-5-18

Feb 13-8:11 AM

When you solve two-step equations, you can use the order of operations in reverse to isolate the variable. You can use the same process when solving two-step inequalities.

Remember!

Draw a closed circle when the inequality includes the point and an open circle when it does not include the point.

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Follow order of operations backwards!

Feb 3-9:36 AM

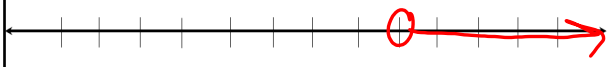
Solve. Then graph the solution set on a number line.

$\frac{y}{2} - 6 > 1$

$+6 \quad +6$

$\frac{2 \cdot y}{2} > 7 \cdot 2$

$y > 14$



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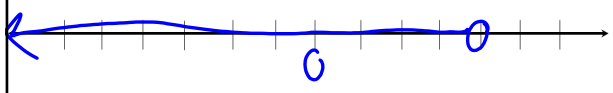
Solve. Then graph the solution on a number line.

$4y - 5 < 11$

$+5 \quad +5$

$\frac{4y}{4} < \frac{16}{4}$

$y < 4$



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Solve. Then graph the solution set on a number line.

$-4 \geq -3x + 5$

$-4 \geq -3x + 5$

$-5 \quad -5$

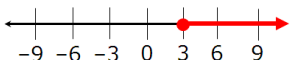
Subtract 5 from both sides.

$-9 \leq -3x$

$-3 \quad -3$

Divide both sides by –3, and reverse the inequality symbol.

$x \geq 3$



$\frac{-9}{-3} \geq \frac{-3x}{-3}$

$3 \leq x \quad x \geq 3$

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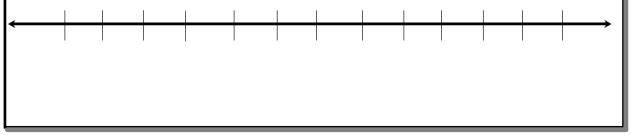
$-4 \geq -3x + 5$



Feb 3-9:40 AM

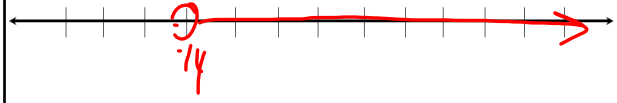
Solve. Then graph the solution set on a number line.

$\frac{h}{7} + 1 > -1$

$-1 \quad -1$

$7 \cdot \frac{h}{7} > -2 \cdot 7$

$h > -14$



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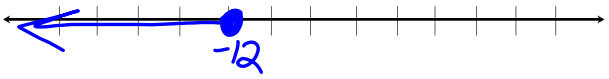
Solve. Then graph the solution set on a number line.

$\frac{m}{-2} + 1 \geq 7$

$-1 \quad -1$

$-2 \cdot \frac{m}{-2} \leq 6 \cdot -2$

$m \leq -12$



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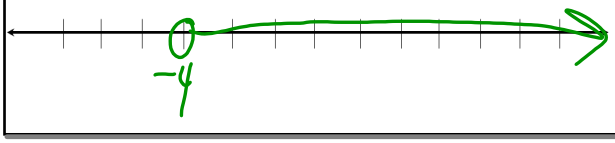
Solve. Then graph the solution on a number line.

$2y - 4 > -12$

$+4 \quad +4$

$\frac{2y}{2} > \frac{-8}{2}$

$y > -4$



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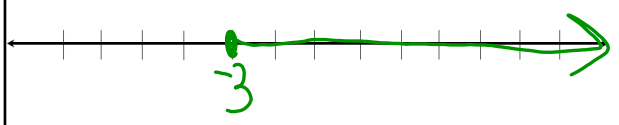
Solve. Then graph the solution set on a number line.

D. $-9x + 4 \leq 31$

$-4 \quad -4$

$\frac{-9x}{-9} \leq \frac{27}{-9}$

$x \geq -3$



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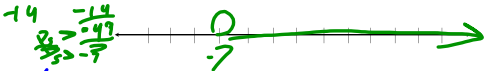
Solve. Then graph each solution set on a number line.

1. $7s + 14 > -35$

$-14 \quad -14$

$\frac{7s}{7} > \frac{-49}{7}$

$s > -7$

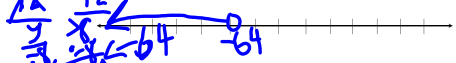


2. $\frac{y}{-8} + 12 > 20$

$-12 \quad -12$

$\frac{y}{-8} > 8$

$y < -64$

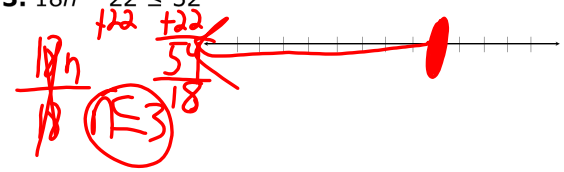


3. $18n - 22 \leq 32$

$+22 \quad +22$

$\frac{18n}{18} \leq \frac{54}{18}$

$n \leq 3$



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Pg. 706 #'s 1-27 ODDS, Skip the word Problems

Feb 5-11:33 AM