Warm-up

Is it a solution

① $\frac{x}{3} \leq 7$; 20

$6.\overline{6} \leq 7$

Yes!

② $4m > -23$; -6

$-24 > -23$

No!

Solve

③ $\frac{3y}{3} = \frac{12}{3}$

$y = 4$

④ $3 \cdot \frac{x}{3} = 5 \cdot 3$

$x = 15$

6.2 More Inequalities

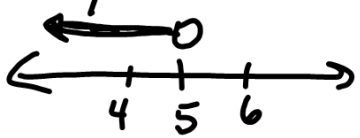
{ one trick

Graph $\frac{3y}{3} < \frac{15}{3}$ ÷ by 3

$y < 5$

< or > open circle

≤ or ≥ closed circle



$35 > 2$

35 greater than 2

Multiply by −1 or ÷ by −1

$-35 < -2$

*When * or ÷ by a negative #, the inequality flips

$\frac{x}{-2} < \frac{3 \cdot -2}{-2}$

Sign Changes

$x > -6$

$\frac{-4x}{-4} \geq \frac{8}{-4}$

$x \leq -2$ Sign Changes!

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Solve & graph

③ $2p \geq 14$

④ $\frac{x}{-3} < -10$

⑤ $-6y < -36$

⑥ $40 > \frac{w}{5}$

⑦ $\frac{m}{4} < 7$

⑧ $72 \leq 9r$

Can you get 8 out of 8?

Solve. No graphs please.

ⓐ $x + 8 \geq -5$

ⓑ $y + 6 < 14$

ⓒ $-8 \leq v - 5$

ⓓ $\frac{n}{-4} > -7$

ⓔ $w - 11 > 2$

ⓕ $-40 < -5r$

ⓖ $-93 < 3p$

ⓗ $\frac{c}{6} \leq -8$