Solving
MULTI-STEP
Inequalities

Solving
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Inequalities
(w/ variables on both sides)

Solving
ONE-STEP
Inequalities

Solving
TWO-STEP
Inequalities

1 $x + 9 < 15$

2 $x - 3 \geq -6$

7 $4x - 7 > 5$

3 $3x \leq -27$

4 $\dfrac{x}{7} < -3$

5 $-8x > 40$

6 $\dfrac{x}{-4} \geq -9$

8 $-2x + 2 \leq -18$

*Don't Forget:

9 $12(x - 3) + 2x > 6$

11 $4(2 - x) \leq 5(x - 2)$

10 $x - 3(x + 2) < 4$

12 $2(4 - x) < 3x - 7$

Solving MULTI-STEP Inequalities

Solving MULTI-STEP Inequalities
(w/ variables on both sides)

Answer Key!

Solving ONE-STEP Inequalities

Solving TWO-STEP Inequalities

1 $x + 9 < 15$
  $-9 \quad -9$

  $x < 6$

2 $x - 3 \geq -6$
  $+3 \quad +3$

  $x \geq -3$

7 $4x - 7 > 5$
  $+7 \quad +7$

  $\dfrac{4x}{4} > \dfrac{12}{4}$

  $x > 3$

3 $\dfrac{3x}{3} \leq \dfrac{-27}{3}$

  $x \leq -9$

4 $7 \cdot \dfrac{x}{7} < -3 \cdot 7$

  $x < -21$

8 $-2x + 2 \leq -18$
  $-2 \quad -2$

  $\dfrac{-2x}{-2} \leq \dfrac{-20}{-2}$

  $x \geq 10$

5 $\dfrac{-8x}{-8} > \dfrac{40}{-8}$

  $x < -5$

6 $-4 \cdot \dfrac{x}{-4} \geq -9 \cdot -4$

  $x \leq 36$

*Don't Forget: You must switch the inequality when multiplying or dividing by a negative!

9 $12(x - 3) + 2x > 6$

  $12x - 36 + 2x > 6$

  $14x - 36 > 6$
    $+36 \quad +36$

  $\dfrac{14x}{14} > \dfrac{42}{14}$

  $x > 3$

10 $x - 3(x + 2) < 4$

  $x - 3x - 6 < 4$

  $-2x - 6 < 4$
    $+6 \quad +6$

  $\dfrac{-2x}{-2} < \dfrac{10}{-2}$

  $x > -5$

11 $4(2 - x) \leq 5(x - 2)$

  $8 - 4x \leq 5x - 10$
    $+4x \quad +4x$

  $8 \leq 9x - 10$
    $+10 \quad +10$

  $\dfrac{18}{9} \leq \dfrac{9x}{9}$

  $2 \leq x \quad x \geq 2$

12 $2(4 - x) < 3x - 7$

  $8 - 2x < 3x - 7$
    $+2x \quad +2x$

  $8 < 5x - 7$
    $+7 \quad +7$

  $\dfrac{15}{5} < \dfrac{5x}{5}$

  $3 < x \quad x > 3$

<u>Directions</u>

Step 1: Print pages 1 & 2 front to back (flip along the short edge)

Step 2: Have students fold over the top and bottom halves to the solid line in the center. Then, have them cut in between the two rectangles, creating four tabs.

The final product should look like this: