

keep scrolling to
get a sneak peek!

Help your PreAlgebra & Algebra 1
students practice **solving &
graphing multistep inequalities
with variables on both sides.**
Your students will benefit from
being given choice when it comes
to how they want to practice
math!

SOLVING INEQUALITIES VARIABLES ON BOTH SIDES CHOICE BOARD

Date: _____ Period: _____ Name: _____

ANSWER KEY

Solving Multistep Inequalities with Variables on Both Sides

Directions: Choose _____ problems from each column. Solve and graph each inequality. Show your work in the boxes.

$-4x > -(6x - 2)$ 	$-6(x + 1) - 2 > -2$ 	$-x - 3 \leq -3x + 3x$ $-x - 3 \leq 0$ $-x \leq 3$ $x \geq -3$ 	$-4x > -(6x - 2)$ $-4x > -6x + 2$ $+6x > -6x + 2$ $+12x > 2$ $x > 1/6$
$-6(1 + 6x) > -6 + 8x$ 	$-5(x + 6) + 1 < -25 - 6$ 	$-2x + 8x \geq 5x + 8$ $6x \geq 5x + 8$ $-5x - 5x \geq 8$ $x \geq 8$ 	$-6(1 + 6x) > -6 + 8x$ $-6 - 36x > -6 + 8x$ $+36x > -6 + 8x$ $+6 > -6 + 44x$ $12 > 44x$ $0 > 44x - 12$ $x < 3/11$
$-26 - 8x \geq 5(2x + 2)$ 	$7x + 8(x + 8) \leq 2x$ 	$-8x - 1 - 2x < 16 + 7x$ $-10x - 1 < 16 + 7x$ $+10x \quad +10x$ $-1 < 16 + 17x$ $-16 < 16 + 17x$ $-17 < 17x$ $-1 < x$ 	$-26 - 8x \geq 5(2x + 2)$ $-26 - 8x \geq 10x + 10$ $-26 - 8x - 10x \geq 10$ $-26 - 18x \geq 10$ $-18x \geq 36$ $x \leq -2$

Math with Ms. Rivera

© Malia Rivera, 2021

Why do you need this?



Allowing student choice in how they practice will encourage them to do the practice!



You can differentiate by the number of problems required of particular students.

Solving Multistep Inequalities Variables on Both Sides Choice Board

Name: _____ Date: _____ Period: _____

Solving Multistep Inequalities with Variables on Both Sides

Directions: Choose _____ problems from each column. Solve and graph each inequality. Show your work in the boxes.

$-x - 3 \leq -3x + 3x$	$-4x > -(6x - 2)$	$-6(x + 1) - 2 > -2$
$-2x + 8x \geq 5x + 8$	$-6(1 + 6x) > -6 +$	
$-8x - 1 - 2x < 16 + 7x$	$-26 - 8x \geq 5(2x +$	
$-2x + 14 > 1 - 8x - 7x$	$-7(6x - 4) \leq -8x - 4$	
$10 + 1 + 3x - 2 > 1 + 4x$	$7(-2 + 8x) < -7x - 1$	

ANSWER KEY

Name: _____ Date: _____ Period: _____

Solving Multistep Inequalities with Variables on Both Sides

Directions: Choose _____ problems from each column. Solve and graph each inequality. Show your work in the boxes.

$-x - 3 \leq -3x + 3x$ $-x - 3 = 0$ $+3 = +3$ $-x = 3$ $-1 = -1$ $x = -3$	$-4x > -(6x - 2)$ $+6x > -6x + 2$ $+12x > 2$ $x > \frac{1}{6}$	$-6(x + 1) - 2 > -2$ $-6x - 6 - 2 > -2$ $-6x - 8 > -2$ $+8 > +8$ $-6x > 6$ $-6 > -6$ $x < -1$
$-2x + 8x \geq 5x + 8$ $6x \geq 5x + 8$ $-5x - 5x$ $x \geq 8$	$-6(1 + 6x) > -6 + 8x$ $-6 - 36x > -6 + 8x$ $+36x > +8x$ $+6 > +6 + 44x$ $44x > 0$ $x < 0$	$-5(x + 6) + 1 < 4$ $-5x - 30 + 1 < 4$ $-5x - 29 < 4$ $+29 > +29$ $-5x < 29$ $-5 < -5$ $x > -5.8$
$-8x - 1 - 2x < 16 + 7x$ $-10x - 1 < 16 + 7x$ $+10x > +10x$ $-16 < 16 + 17x$ $-17 < 17x$ $-1 < 17x$ $x > -\frac{1}{17}$	$-26 - 8x \geq 5(2x + 10)$ $-26 - 8x \geq 10x + 50$ $-26 \geq 18x + 50$ $-76 \geq 18x$ $-2 \geq x$ or $x \leq -2$	$7x + 8(x - 1) < 24$ $7x + 8x - 8 < 24$ $15x - 8 < 24$ $+8 > +8$ $15x < 32$ $32 > 32$ $x < \frac{32}{15}$
$-2x + 14 > 1 - 8x - 7x$ $-2x + 14 > 1 - 15x$ $+15x > +15x$ $13x + 14 > 1$ $-14 > -14$ $13x > -13$ $x > -1$	$-7(6x - 4) \leq -8x - 40$ $-42x + 28 \leq -8x - 40$ $+42x \leq -42x$ $28 \leq 34x - 40$ $+40 > +40$ $68 \leq 34x$ $34 \leq 34x$ $2 \leq x$ or $x \geq 2$	$-24 + 8x > 16$ $-24 + 8x > 16$ $+24 > +24$ $8x > 40$ $8 > 8$ $x > 5$
$10 + 1 + 3x - 2 > 1 + 4x$ $9 + 3x > 1 + 4x$ $-3x > -8$ $3 > 3$ $x > -\frac{8}{3}$	$7(-2 + 8x) < -7x - 14$ $-14 + 56x < -7x - 14$ $+7x > +7x$ $-14 < -14$ $56x < -7x - 14$ $63x < -14$ $x < -\frac{14}{63}$	

Multistep Inequalities Variables on Both Sides Choice Board *includes:*

Name: _____ Date: _____ Period: _____

Solving Multistep Inequalities with Variables on Both Sides

Directions: Choose _____ problems from each column. Solve and graph each inequality. Show your work in the boxes.

$-x - 3 \leq -3x + 3x$	$-4x > -(6x - 2)$	$-6(x + 1) - 2 > -2$
$-2x + 8x \geq 5x + 8$	$-2(x + 6x) > -6 + 8x$	$-5(x + 6) + 1 < -25 - 6x$
$-8x - 1 - 2x < 16 + 7x$	$-26 - 8x \geq 5(2x + 2)$	$7x + 8(x + 8) \leq 2x + 25$
$-2x + 14 > 4$		

- ✓ printable worksheet
- ✓ a detailed answer key
- ✓ 3 columns with 5 questions in each - 15 question total
- ✓ Spot to assign how many problems students need to complete

Multistep Inequalities Variables on One Side Choice Board

standards covered:

CCSS: HSA-REI.B.3

TEKs: A1.5.B

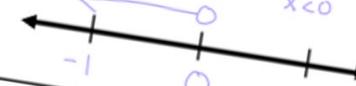
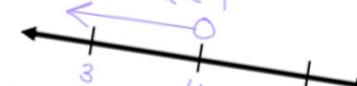
VA SOLs: PFA.8.18,
EO.A.5.a

Name: _____ Date: _____ Period: _____

ANSWER KEY

Solving Multistep Inequalities with Variables on Both Sides

Directions: Choose _____ problems from each column. Solve and graph each inequality. Show your work in the boxes.

$-x - 3 \leq -3x + 3x$ $\begin{aligned} -x - 3 &\leq 0 \\ +3 &+3 \\ -x &\leq 3 \\ -1 &-1 \\ x &\geq -3 \end{aligned}$ 	$-4x > -(6x - 2)$ $\begin{aligned} -4x &> -6x + 2 \\ +6x &+6x \\ 2x &> +2 \\ \frac{2x}{2} & > \frac{2}{2} \\ x &> 1 \end{aligned}$ 	$-6(x + 1) - 2 > -2$ $\begin{aligned} -6x - 6 - 2 &> -2 \\ -6x - 8 &> -2 \\ +8 &+8 \\ -6x &> +6 \\ \frac{-6x}{-6} &> \frac{6}{-6} \\ x &< -1 \end{aligned}$ 
$-2x + 8x \geq 5x + 8$ $\begin{aligned} 6x &\geq 5x + 8 \\ -5x &-5x \\ x &\geq 8 \end{aligned}$ 	$-6(1 + 6x) > -6 + 8x$ $\begin{aligned} -6 - 36x &> -6 + 8x \\ +36x &+36x \\ -6 &> -6 + 44x \\ +6 &+6 \\ 0 &> 44x \\ \frac{0}{44} &> \frac{44x}{44} \rightarrow 0 > x \\ &\text{or} \\ x &< 0 \end{aligned}$ 	$-5(x + 6) + 1 < -25 - 6x$ $\begin{aligned} -5x - 30 + 1 &< -25 - 6x \\ -5x - 29 &< -25 - 6x \\ +6x &+6x \\ x - 29 &< -25 + 6x \\ +29 &+29 \\ x &< 4 \end{aligned}$ 
$-8x - 1 - 2x < 16 + 7x$ $\begin{aligned} -10x - 1 &< 16 + 7x \\ +10x &+10x \\ -1 &< 16 + 17x \\ -16 &-16 \\ -17 &< 17x \\ \frac{-17}{17} &< \frac{17x}{17} \rightarrow -1 < x \\ &\text{or} \\ x &> -1 \end{aligned}$ 	$-26 - 8x \geq 5(2x + 2)$ $\begin{aligned} -26 - 8x &\geq 10x + 10 \\ +8x &+8x \\ -26 &\geq 18x + 10 \\ -10 &-10 \\ -36 &\geq 18x \\ \frac{-36}{18} &\geq \frac{18x}{18} \\ -2 &\geq x \end{aligned}$ 	$7x + 8(x + 8) \leq 2x + 25$ $\begin{aligned} 7x + 8x + 64 &\leq 2x + 25 \\ 15x + 64 &\leq 2x + 25 \\ -2x &-2x \\ 13x + 64 &\leq 25 \\ 13x &\leq -39 \\ \frac{13x}{13} &\leq \frac{-39}{13} \\ x &\leq -3 \end{aligned}$ 

how the choice board resource works

Differentiate the choice board worksheet by reducing the number of problems assigned to show mastery.

Name: _____ Date: _____ Period: _____

Solving Multistep Inequalities with Variables on Both Sides

Directions: Choose _____ problems from each column. Solve and graph each inequality. Show your work in the boxes.

$-x - 3 \leq -3x + 3x$	$-4x > -(6x - 2)$	$-6(x + 1) - 2 > -2$
		
$-2x + 8x \geq 5x + 8$	$-6(1 + 6x) > -6 + 8x$	$-5(x + 6) + 1 < -25 - 6x$
		
$-8x - 1 - 2x < 16 + 7x$	$-26 - 8x \geq 5(2x + 2)$	$7x + 8(x + 8) \leq 2x + 25$
		
$-2x + 14 > 1 - 8x - 7x$	$-7(6x - 4) \leq -8x - 40$	$-24 + x \geq -6x + 2(6x + 8)$
		

Assign students the number of problems they need to complete from each column.

Students can complete the any problems they want to in each column and in any order.

Free Algebra Activities!

When you join my email list, I'll send you a free Algebra print & digital self-checking activities. There is an Algebra 1 and Algebra 2 version!

You'll also be getting exclusive freebies and content to help your Algebra students be successful this school year!

check it out!

Answer Key
Name: _____ Date: _____
ADDING & SUBTRACTING RATIONAL EXPRESSIONS
Directions: Simplify each rational expression. Show your work.

Solving Systems of Equations
Date: _____
Solve each system of equations using substitution or elimination. Check your solution.
2. $2x - 6y = -18$
 $x = 3y - 9$
4. $2x + 6y = -1$
 $y = -2x + 3$

Answer Key
Solving Systems of Equations
Date: _____
Solve each system of equations using substitution or elimination. Check your solution.
2. $2x - 6y = -18$
 $x = 3y - 9$
 $2(3y - 9) - 6y = -18$
 $6y - 18 - 6y = -18$
 $-18 = -18$
infinitely many solutions
4. $y = 2 + 5$
 $y = 7$
 $(2, 7)$

Rational Expression Operations - Addition & Subtraction
Directions: Answer each question and type the question number with the matching answer in the answer column to the right.

#	Question	Answer	Type the matching question numbers here
1	$\frac{5}{x} + \frac{3}{x+1}$	$\frac{2x+1}{x+2}$	
2	$\frac{2}{x+4} - \frac{x^2}{x^2-16}$	$-\frac{1}{x^2-1}$	
3	$\frac{x+2}{x^2+4x+4} + \frac{2x}{x+2}$	$\frac{2x^2+2x+5}{x^2+x-2}$	
4	$\frac{x}{x-2} + \frac{3}{x-1}$	$-\frac{x^2+2x-8}{x^2-16}$	
5	$\frac{x}{4x+8} - \frac{1}{x^2+2x}$	$\frac{8x+5}{x^2+1}$	
6	$\frac{x+2}{x-1} + \frac{x-1}{x+2}$	$\frac{x^2-3x+7}{x^2-4}$	
7	$\frac{2x+1}{x^2-4} + \frac{x-3}{x+2}$	$\frac{x^2+2x-6}{x^2-3x+2}$	
8	$\frac{x^2+2x}{x^2-1} - \frac{x+1}{x-1}$	$\frac{x-2}{4x}$	

(c) Malia Rivera, 2024



hey there!

My name is Malia and I'm passionate about making learning and practicing math fun. I love creating engaging math resources for my students and I hope your students enjoy this activity too!

Did you know you could get **FREE** money from TPT??

All you need to do is leave feedback on the product after you purchase. [Click here](#) to leave reviews and earn credits towards your next TPT purchase!

let's connect!



Follow my TPT store



Follow my Instagram



Email me