

keep scrolling to
get a sneak peek!

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

SOLVING INEQUALITIES VARIABLES ON ONE SIDE CHOICE BOARD

Date: _____ Period: _____

Multistep Inequalities Variables on One Side

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

$x > 6$	$-7(x - 6) < 35$	$-x + 8(2x - 3) < 36$
$x - 3x$	$72 \geq 8(5x - 6)$	$-20 \leq -6(5x - 2)$
$x + 18$	$-3(1 - 4x) \geq 9$	$83 \geq -5 - 2$
		$4(-3x)$

Name: _____ Date: _____

ANSWER KEY

Solving Multistep Inequalities Variables on One Side

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

$-8x + 7x > 6$ $-x > 6$ -1 $x < -6$	$-7(x - 6) < 35$ $-7x + 42 < 35$ $-42 - 42$ $-7x < -7$ $x > 1$	$-x + 8(2x - 3) < 36$ $-x + 16x - 24 < 36$ $15x - 24 < 36$ $15x < 60$ $x < 4$
$-12 \leq 7x - 3x$ $-12 \leq 4x$ 4 $-3 \leq x$ or $x \geq -3$	$72 \geq 8(5x - 6)$ $72 \geq 40x - 48$ $+48$ $120 \geq 40x$ 40 $3 \geq x$ or $x \leq 3$	$-20 \leq -6(5x - 2)$ $-20 \leq -30x + 12$ $-32 \leq -30x$ $32 \geq 30x$ $x \leq \frac{32}{30}$ $x \leq \frac{16}{15}$
$-7x + x < 18$ $-6x < 18$ -6 $x > -3$	$-3(1 - 4x) \geq 9$ $-3 + 12x \geq 9$ $+3$ $12x \geq 12$ 12 $x \geq 1$	$83 \geq -5 - 2$ $83 \geq -7$
$4(-3x)$ $-12 > -12x$ $12 > 12x$ $x < 1$	$4(-3x)$ $-12 > -12x$ $12 > 12x$ $x < 1$	$4(-3x)$ $-12 > -12x$ $12 > 12x$ $x < 1$

Math with Ms. Rivera

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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 One Side Choice Board

Name: _____ Date: _____ Period: _____

Solving Multistep Inequalities Variables on One Side

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

$-8x + 7x > 6$	$-7(x - 6) < 35$	$-x + 8(2x - 3) < 36$
$-12 \leq 7x - 3x$	$72 \geq 8(5x - 6)$	
$-7x + x < 18$	$-3(1 - 4x) \geq 9$	
$1 + 6x + 3 > -8$	$18 < -6(2x - 4)$	
$2x + 4 - 7x \geq -11$	$-9 < -3(-8x - 5)$	

ANSWER KEY

Name: _____ Date: _____ Period: _____

Solving Multistep Inequalities Variables on One Side

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

$-8x + 7x > 6$ $-x > 6$ $x < -6$	$-7(x - 6) < 35$ $-7x + 42 < 35$ $-7x < -7$ $x > 1$	$-x + 8(2x - 3) < 36$ $-x + 16x - 24 < 36$ $15x - 24 < 36$ $15x < 60$ $x < 4$
$-12 \leq 7x - 3x$ $-12 \leq 4x$ $-3 \leq x$ or $x \geq -3$	$72 \geq 8(5x - 6)$ $72 \geq 40x - 48$ $+48$ $120 \geq 40x$ $3 \geq x$ or $x \leq 3$	$-x + 8(2x - 3) < 36$ $-x + 16x - 24 < 36$ $15x - 24 < 36$ $15x < 60$ $x < 4$
$-7x + x < 18$ $-6x < 18$ $x > -3$	$-3(1 - 4x) \geq 9$ $-3 + 12x \geq 9$ $+3$ $12x \geq 12$ $x \geq 1$	$-x + 8(2x - 3) < 36$ $-x + 16x - 24 < 36$ $15x - 24 < 36$ $15x < 60$ $x < 4$
$1 + 6x + 3 > -8$ $6x + 4 > -8$ $+4$ $6x > -12$ $x > -2$	$18 < -6(2x - 4)$ $18 < -12x + 24$ -24 $-12x > -6$ $x > 1/2$	$-x + 8(2x - 3) < 36$ $-x + 16x - 24 < 36$ $15x - 24 < 36$ $15x < 60$ $x < 4$
$2x + 4 - 7x \geq -11$ $-5x + 4 \geq -11$ $+4$ $-5x \geq -15$ $x \leq 3$	$-9 < -3(-8x - 5)$ $-9 < 24x + 15$ -24 $-24x < 24$ $x > -1$	$-x + 8(2x - 3) < 36$ $-x + 16x - 24 < 36$ $15x - 24 < 36$ $15x < 60$ $x < 4$

Multistep Inequalities Variables on One Side Choice Board includes:

Name: _____ Date: _____ Period: _____

Solving Multistep Inequalities Variables on One Side

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

$-8x + 7x > 6$	$-7(x - 6) < 35$	$-x + 8(2x - 3) < 36$
$-12 \leq 7x - 3x$	$72 \geq 8(5x - 6)$	$-20 \leq -6(5x - 2) - 2$
$-7x + x < 18$	$-3(1 - 4x) \geq 9$	$83 \geq -5 - 2(7x - 2)$
$1 + 6x + 6$		

- ✓ 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

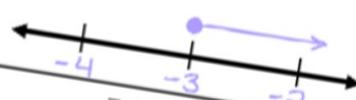
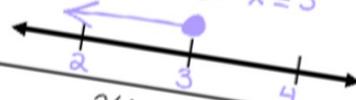
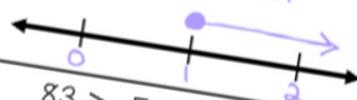
VA SOLs: EO.A.5.a

Name: _____ Date: _____ Period: _____

ANSWER KEY

Solving Multistep Inequalities Variables on One Side

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

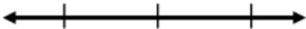
$\begin{aligned} -8x + 7x &> 6 \\ -x &> 6 \\ -1 & \cdot -1 \\ x &< -6 \end{aligned}$ 	$\begin{aligned} -7(x - 6) &< 35 \\ -7x + 42 &< 35 \\ -42 & -42 \\ -7x &< -7 \\ -7 & \cdot -7 \\ x &> 1 \end{aligned}$ 	$\begin{aligned} -x + 8(2x - 3) &< 36 \\ -x + 16x - 24 &< 36 \\ 15x - 24 &< 36 \\ +24 & +24 \\ 15x &< 60 \\ \frac{15x}{15} &< \frac{60}{15} \\ x &< 4 \end{aligned}$ 
$\begin{aligned} -12 &\leq 7x - 3x \\ -12 &\leq 4x \\ \frac{-12}{4} &\leq \frac{4x}{4} \\ -3 &\leq x \text{ or } x \geq -3 \end{aligned}$ 	$\begin{aligned} 72 &\geq 8(5x - 6) \\ 72 &\geq 40x - 48 \\ +48 & +48 \\ 120 &\geq 40x \\ \frac{120}{40} &\geq \frac{40x}{40} \\ 3 &\geq x \text{ or } x \leq 3 \end{aligned}$ 	$\begin{aligned} -20 &\leq -6(5x - 2) - 2 \\ -20 &\leq -30x + 12 - 2 \\ -20 &\leq -30x + 10 \\ -10 &\leq -30x + 10 \\ -30 &\leq -30x \\ -30 & \cdot -30 \\ 1 &\leq x \text{ or } x \geq 1 \end{aligned}$ 
$\begin{aligned} -7x + x &< 18 \\ -6x &< 18 \\ \frac{-6x}{-6} &< \frac{18}{-6} \\ x &> -3 \end{aligned}$ 	$\begin{aligned} -3(1 - 4x) &\geq 9 \\ -3 + 12x &\geq 9 \\ +3 & +3 \\ 12x &\geq 12 \\ \frac{12x}{12} &\geq \frac{12}{12} \\ x &\geq 1 \end{aligned}$ 	$\begin{aligned} 83 &\geq -5 - 2(7x - 2) \\ 83 &\geq -5 - 14x + 4 \\ 83 &\geq -1 - 14x \\ +1 & +1 \end{aligned}$ 

how the choice board resource works

Name: _____ Date: _____ Period: _____

Solving Multistep Inequalities Variables on One Side

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

$-8x + 7x > 6$	$-7(x - 6) < 35$	$-x + 8(2x - 3) < 36$
		
$-12 \leq 7x - 3x$	$72 \geq 8(5x - 6)$	$-20 \leq -6(5x - 2) - 2$
		
$-7x + x < 18$	$-3(1 - 4x) \geq 9$	$83 \geq -5 - 2(7x - 2)$
		
$1 + 6x + 3 > -8$	$18 < -6(2x - 4)$	$4(-3x + 5) - 6 < 2$

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

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

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

how to use this resource

This is a great individual practice activity to use when reviewing how to solve & graph multistep inequalities with variables on one side.

My favorite ways to use this choice board is for homework and math practice stations.

This is also a **substitute-friendly** assignment!

ANSWER KEY

Name: _____ Date: _____ Period: _____

Solving Multistep Inequalities Variables on One Side

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

$-8x + 7x > 6$ $\frac{-x}{-1} > \frac{6}{-1}$ $x < -6$	$-7(x - 6) < 35$ $-7x + 42 < 35$ $-42 \quad -42$ $\frac{-7x}{-7} < \frac{-7}{-7}$ $x > 1$	$-x + 8(2x - 3) < 36$ $-x + 16x - 24 < 36$ $15x - 24 < 36$ $+24 \quad +24$ $\frac{15x}{15} < \frac{60}{15}$ $x < 4$												
$-12 \leq 7x - 3x$ $\frac{-12}{4} \leq \frac{4x}{4}$ $-3 \leq x \text{ or } x \geq -3$	<p>Name: _____ Date: _____ Period: _____</p> <p><i>Solving Multistep Inequalities Variables on One Side</i></p> <p>Directions: Choose _____ problems from each column. Solve and graph each inequality. Show your work in the boxes.</p> <table border="1"> <tr> <td> $-8x + 7x > 6$ </td> <td> $-7(x - 6) < 35$ </td> <td> $-x + 8(2x - 3) < 36$ </td> </tr> <tr> <td> $-12 \leq 7x - 3x$ </td> <td> $72 \geq 8(5x - 6)$ </td> <td> $-20 \leq -6(5x - 2) - 2$ </td> </tr> <tr> <td> $-7x + x < 18$ $\frac{-6x}{6} < \frac{18}{6}$ $x > -3$ </td> <td> $1 + 6x + 3 > -8$ $6x + 4 > -8$ $-4 \quad -4$ $\frac{6x}{6} > \frac{-12}{6}$ $x > -2$ </td> <td> $-7x + x < 18$ </td> </tr> <tr> <td> $2x + 4 - 7x \geq -11$ $-5x + 4 \geq -11$ $-4 \quad -4$ $\frac{-5x}{-5} \geq \frac{-15}{-5}$ $x \leq 3$ </td> <td> $-3(1 - 4x) \geq 9$ </td> <td> $83 \geq -5 - 2(7x - 2)$ </td> </tr> </table>		$-8x + 7x > 6$	$-7(x - 6) < 35$	$-x + 8(2x - 3) < 36$	$-12 \leq 7x - 3x$	$72 \geq 8(5x - 6)$	$-20 \leq -6(5x - 2) - 2$	$-7x + x < 18$ $\frac{-6x}{6} < \frac{18}{6}$ $x > -3$	$1 + 6x + 3 > -8$ $6x + 4 > -8$ $-4 \quad -4$ $\frac{6x}{6} > \frac{-12}{6}$ $x > -2$	$-7x + x < 18$	$2x + 4 - 7x \geq -11$ $-5x + 4 \geq -11$ $-4 \quad -4$ $\frac{-5x}{-5} \geq \frac{-15}{-5}$ $x \leq 3$	$-3(1 - 4x) \geq 9$	$83 \geq -5 - 2(7x - 2)$
$-8x + 7x > 6$	$-7(x - 6) < 35$	$-x + 8(2x - 3) < 36$												
$-12 \leq 7x - 3x$	$72 \geq 8(5x - 6)$	$-20 \leq -6(5x - 2) - 2$												
$-7x + x < 18$ $\frac{-6x}{6} < \frac{18}{6}$ $x > -3$	$1 + 6x + 3 > -8$ $6x + 4 > -8$ $-4 \quad -4$ $\frac{6x}{6} > \frac{-12}{6}$ $x > -2$	$-7x + x < 18$												
$2x + 4 - 7x \geq -11$ $-5x + 4 \geq -11$ $-4 \quad -4$ $\frac{-5x}{-5} \geq \frac{-15}{-5}$ $x \leq 3$	$-3(1 - 4x) \geq 9$	$83 \geq -5 - 2(7x - 2)$												

You may also enjoy ...

SOLVING INEQUALITIES VARIABLES ON BOTH SIDES

Choice Board

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SOLVING INEQUALITIES VARIABLES ONE SIDE

Football Task Cards

Recording Sheet & Answer Key Included

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SOLVING MULTISTEP INEQUALITIES - ONE SIDE

Digital & Print Activity Pack

5 Activities

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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!

The image shows a collage of algebra worksheets and a digital tablet. The worksheets include:

- Answer Key** for **ADDING & SUBTRACTING RATIONAL EXPRESSIONS** and **SOLVING SYSTEMS OF EQUATIONS**.
- MULTIPLYING & DIVIDING RATIONAL EXPRESSIONS** worksheet with problems like $2. \frac{x}{x+4} \cdot \frac{x^2}{x^2-16}$.
- SOLVING SYSTEMS OF EQUATIONS** worksheet with problems like $2. 2x - 6y = -18$ and $x = 3y - 4$.

The digital tablet displays a self-checking activity titled **Rational Expression Operations - Addition & Subtraction**. The directions are: "Answer each question and type the question number with the matching answer in the answer column to the right." The activity consists of a table with 8 questions and 8 answers, with a path of colored lines connecting the questions to their corresponding answers.

#	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!

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