Algebra I Lesson #3 Unit 2
Class Worksheet #3
For Worksheet 7

Algebra I Solving Equations with Variables on Both Sides

	1.	2.	3.	4.
Input	$8x + 4 = 5x + 22$	$9x + 6 = 6x + 30$	$5x + 10 = x + 42$	$7x + 5 = 5x + 13$
↓ First Operation	subtract $5x$ from both sides	subtract $6x$ from both sides	subtract x from both sides	
↓ Output				
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↓ Output	$3x$			
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↓ Output	$3x + 4 = 22$	$3x + 6 = 30$	$4x + 10 = 42$	
↓ Second Operation	subtract 4 from both sides	subtract 6 from both sides	Subtract 10 from both sides	
↓ Output	$3x = 18$	$3x = 24$	$4x = 32$	
↓ Third Operation	divide both sides by 3	divide both sides by 3	divide both sides by 4	
↓ Output	$x = 6$	$x = 8$	$x =$	

Algebra I Solving Equations with Variables on Both Sides

	1.	2.	3.	4.
Input	$8x + 4 = 5x + 22$	$9x + 6 = 6x + 30$	$5x + 10 = x + 42$	$7x + 5 = 5x + 13$
↓ First Operation	subtract $5x$ from both sides	subtract $6x$ from both sides	subtract x from both sides	
↓ Output	$3x + 4 = 22$	$3x + 6 = 30$	$4x + 10 = 42$	
↓ Second Operation	subtract 4 from both sides	subtract 6 from both sides	Subtract 10 from both sides	
↓ Output	$3x = 18$	$3x = 24$	$4x = 32$	
↓ Third Operation	divide both sides by 3	divide both sides by 3	divide both sides by 4	
↓ Output	$x = 6$	$x = 8$	$x = 8$	

Algebra I Solving Equations with Variables on Both Sides

	1.	2.	3.	4.
Input	$8x + 4 = 5x + 22$	$9x + 6 = 6x + 30$	$5x + 10 = x + 42$	$7x + 5 = 5x + 13$
↓ First Operation	subtract $5x$ from both sides	subtract $6x$ from both sides	subtract x from both sides	
↓ Output	$3x + 4 = 22$	$3x + 6 = 30$	$4x + 10 = 42$	
↓ Second Operation	subtract 4 from both sides	subtract 6 from both sides	Subtract 10 from both sides	
↓ Output	$3x = 18$	$3x = 24$	$4x = 32$	
↓ Third Operation	divide both sides by 3	divide both sides by 3	divide both sides by 4	
↓ Output	$x = 6$	$x = 8$	$x = 8$	

Algebra I Solving Equations with Variables on Both Sides

	1.	2.	3.	4.
Input	$8x + 4 = 5x + 22$	$9x + 6 = 6x + 30$	$5x + 10 = x + 42$	$7x + 5 = 5x + 13$
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract x from both sides	
↓ Output	$3x + 4 = 22$	$3x + 6 = 30$	$4x + 10 = 42$	
↓ Second Operation	subtract 4 from both sides	subtract 6 from both sides	Subtract 10 from both sides	
↓ Output	$3x = 18$	$3x = 24$	$4x = 32$	
↓ Third Operation	divide both sides by 3	divide both sides by 3	divide both sides by 4	
↓ Output	$x = 6$	$x = 8$	$x = 8$	

Algebra I Solving Equations with Variables on Both Sides

	1.	2.	3.	4.
Input	$8x + 4 = 5x + 22$	$9x + 6 = 6x + 30$	$5x + 10 = x + 42$	$7x + 5 = 5x + 13$
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract x from both sides	Subtract 5x from both sides
↓ Output	$3x + 4 = 22$	$3x + 6 = 30$	$4x + 10 = 42$	
↓ Second Operation	subtract 4 from both sides	subtract 6 from both sides	Subtract 10 from both sides	
↓ Output	$3x = 18$	$3x = 24$	$4x = 32$	
↓ Third Operation	divide both sides by 3	divide both sides by 3	divide both sides by 4	
↓ Output	$x = 6$	$x = 8$	$x = 8$	

Algebra I Solving Equations with Variables on Both Sides

	1.	2.	3.	4.
Input	8x + 4 = 5x + 22	9x + 6 = 6x + 30	5x + 10 = x + 42	7x + 5 = 5x + 13
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract x from both sides	Subtract 5x from both sides
↓ Output	3x + 4 = 22	3x + 6 = 30	4x + 10 = 42	2x
↓ Second Operation	subtract 4 from both sides	subtract 6 from both sides	Subtract 10 from both sides	
↓ Output	3x = 18	3x = 24	4x = 32	
↓ Third Operation	divide both sides by 3	divide both sides by 3	divide both sides by 4	
↓ Output	x = 6	x = 8	x = 8	

Algebra I Solving Equations with Variables on Both Sides

	1.	2.	3.	4.
Input	8x + 4 = 5x + 22	9x + 6 = 6x + 30	5x + 10 = x + 42	7x + 5 = 5x + 13
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract x from both sides	Subtract 5x from both sides
↓ Output	3x + 4 = 22	3x + 6 = 30	4x + 10 = 42	2x + 5 =
↓ Second Operation	subtract 4 from both sides	subtract 6 from both sides	Subtract 10 from both sides	
↓ Output	3x = 18	3x = 24	4x = 32	
↓ Third Operation	divide both sides by 3	divide both sides by 3	divide both sides by 4	
↓ Output	x = 6	x = 8	x = 8	

Algebra I Solving Equations with Variables on Both Sides

	1.	2.	3.	4.
Input	$8x + 4 = 5x + 22$	$9x + 6 = 6x + 30$	$5x + 10 = x + 42$	$7x + 5 = 5x + 13$
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract x from both sides	Subtract 5x from both sides
↓ Output	$3x + 4 = 22$	$3x + 6 = 30$	$4x + 10 = 42$	$2x + 5 = 13$
↓ Second Operation	subtract 4 from both sides	subtract 6 from both sides	Subtract 10 from both sides	
↓ Output	$3x = 18$	$3x = 24$	$4x = 32$	
↓ Third Operation	divide both sides by 3	divide both sides by 3	divide both sides by 4	
↓ Output	$x = 6$	$x = 8$	$x = 8$	

Algebra I Solving Equations with Variables on Both Sides

	1.	2.	3.	4.
Input	$8x + 4 = 5x + 22$	$9x + 6 = 6x + 30$	$5x + 10 = x + 42$	$7x + 5 = 5x + 13$
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract x from both sides	Subtract 5x from both sides
↓ Output	$3x + 4 = 22$	$3x + 6 = 30$	$4x + 10 = 42$	$2x + 5 = 13$
↓ Second Operation	subtract 4 from both sides	subtract 6 from both sides	Subtract 10 from both sides	
↓ Output	$3x = 18$	$3x = 24$	$4x = 32$	
↓ Third Operation	divide both sides by 3	divide both sides by 3	divide both sides by 4	
↓ Output	$x = 6$	$x = 8$	$x = 8$	

Algebra I Solving Equations with Variables on Both Sides

	1.	2.	3.	4.
Input	$8x + 4 = 5x + 22$	$9x + 6 = 6x + 30$	$5x + 10 = x + 42$	$7x + 5 = 5x + 13$
↓ First Operation	subtract $5x$ from both sides	subtract $6x$ from both sides	subtract x from both sides	Subtract $5x$ from both sides
↓ Output	$3x + 4 = 22$	$3x + 6 = 30$	$4x + 10 = 42$	$2x + 5 = 13$
↓ Second Operation	subtract 4 from both sides	subtract 6 from both sides	Subtract 10 from both sides	
↓ Output	$3x = 18$	$3x = 24$	$4x = 32$	
↓ Third Operation	divide both sides by 3	divide both sides by 3	divide both sides by 4	
↓ Output	$x = 6$	$x = 8$	$x = 8$	

Algebra I Solving Equations with Variables on Both Sides

	1.	2.	3.	4.
Input	$8x + 4 = 5x + 22$	$9x + 6 = 6x + 30$	$5x + 10 = x + 42$	$7x + 5 = 5x + 13$
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract x from both sides	Subtract 5x from both sides
↓ Output	$3x + 4 = 22$	$3x + 6 = 30$	$4x + 10 = 42$	$2x + 5 = 13$
↓ Second Operation	subtract 4 from both sides	subtract 6 from both sides	Subtract 10 from both sides	Subtract 5 from both sides
↓ Output	$3x = 18$	$3x = 24$	$4x = 32$	
↓ Third Operation	divide both sides by 3	divide both sides by 3	divide both sides by 4	
↓ Output	$x = 6$	$x = 8$	$x = 8$	

Algebra I Solving Equations with Variables on Both Sides

	1.	2.	3.	4.
Input	8x + 4 = 5x + 22	9x + 6 = 6x + 30	5x + 10 = x + 42	7x + 5 = 5x + 13
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract x from both sides	Subtract 5x from both sides
↓ Output	3x + 4 = 22	3x + 6 = 30	4x + 10 = 42	2x + 5 = 13
↓ Second Operation	subtract 4 from both sides	subtract 6 from both sides	Subtract 10 from both sides	Subtract 5 from both sides
↓ Output	3x = 18	3x = 24	4x = 32	2x =
↓ Third Operation	divide both sides by 3	divide both sides by 3	divide both sides by 4	
↓ Output	x = 6	x = 8	x = 8	

Algebra I Solving Equations with Variables on Both Sides

	1.	2.	3.	4.
Input	$8x + 4 = 5x + 22$	$9x + 6 = 6x + 30$	$5x + 10 = x + 42$	$7x + 5 = 5x + 13$
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract x from both sides	Subtract 5x from both sides
↓ Output	$3x + 4 = 22$	$3x + 6 = 30$	$4x + 10 = 42$	$2x + 5 = 13$
↓ Second Operation	subtract 4 from both sides	subtract 6 from both sides	Subtract 10 from both sides	Subtract 5 from both sides
↓ Output	$3x = 18$	$3x = 24$	$4x = 32$	$2x = 8$
↓ Third Operation	divide both sides by 3	divide both sides by 3	divide both sides by 4	
↓ Output	$x = 6$	$x = 8$	$x = 8$	

Algebra I Solving Equations with Variables on Both Sides

	1.	2.	3.	4.
Input	8x + 4 = 5x + 22	9x + 6 = 6x + 30	5x + 10 = x + 42	7x + 5 = 5x + 13
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract x from both sides	Subtract 5x from both sides
↓ Output	3x + 4 = 22	3x + 6 = 30	4x + 10 = 42	2x + 5 = 13
↓ Second Operation	subtract 4 from both sides	subtract 6 from both sides	Subtract 10 from both sides	Subtract 5 from both sides
↓ Output	3x = 18	3x = 24	4x = 32	2x = 8
↓ Third Operation	divide both sides by 3	divide both sides by 3	divide both sides by 4	
↓ Output	x = 6	x = 8	x = 8	

Algebra I Solving Equations with Variables on Both Sides

	1.	2.	3.	4.
Input	$8x + 4 = 5x + 22$	$9x + 6 = 6x + 30$	$5x + 10 = x + 42$	$7x + 5 = 5x + 13$
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract x from both sides	Subtract 5x from both sides
↓ Output	$3x + 4 = 22$	$3x + 6 = 30$	$4x + 10 = 42$	$2x + 5 = 13$
↓ Second Operation	subtract 4 from both sides	subtract 6 from both sides	Subtract 10 from both sides	Subtract 5 from both sides
↓ Output	$3x = 18$	$3x = 24$	$4x = 32$	$2x = 8$
↓ Third Operation	divide both sides by 3	divide both sides by 3	divide both sides by 4	
↓ Output	$x = 6$	$x = 8$	$x = 8$	

Algebra I Solving Equations with Variables on Both Sides

	1.	2.	3.	4.
Input	8x + 4 = 5x + 22	9x + 6 = 6x + 30	5x + 10 = x + 42	7x + 5 = 5x + 13
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract x from both sides	Subtract 5x from both sides
↓ Output	3x + 4 = 22	3x + 6 = 30	4x + 10 = 42	2x + 5 = 13
↓ Second Operation	subtract 4 from both sides	subtract 6 from both sides	Subtract 10 from both sides	Subtract 5 from both sides
↓ Output	3x = 18	3x = 24	4x = 32	2x = 8
↓ Third Operation	divide both sides by 3	divide both sides by 3	divide both sides by 4	divide both sides by 2
↓ Output	x = 6	x = 8	x = 8	

Algebra I Solving Equations with Variables on Both Sides

	1.	2.	3.	4.
Input	$8x + 4 = 5x + 22$	$9x + 6 = 6x + 30$	$5x + 10 = x + 42$	$7x + 5 = 5x + 13$
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract x from both sides	Subtract 5x from both sides
↓ Output	$3x + 4 = 22$	$3x + 6 = 30$	$4x + 10 = 42$	$2x + 5 = 13$
↓ Second Operation	subtract 4 from both sides	subtract 6 from both sides	Subtract 10 from both sides	Subtract 5 from both sides
↓ Output	$3x = 18$	$3x = 24$	$4x = 32$	$2x = 8$
↓ Third Operation	divide both sides by 3	divide both sides by 3	divide both sides by 4	divide both sides by 2
↓ Output	$x = 6$	$x = 8$	$x = 8$	$x =$

Algebra I Solving Equations with Variables on Both Sides

	1.	2.	3.	4.
Input	$8x + 4 = 5x + 22$	$9x + 6 = 6x + 30$	$5x + 10 = x + 42$	$7x + 5 = 5x + 13$
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract x from both sides	Subtract 5x from both sides
↓ Output	$3x + 4 = 22$	$3x + 6 = 30$	$4x + 10 = 42$	$2x + 5 = 13$
↓ Second Operation	subtract 4 from both sides	subtract 6 from both sides	Subtract 10 from both sides	Subtract 5 from both sides
↓ Output	$3x = 18$	$3x = 24$	$4x = 32$	$2x = 8$
↓ Third Operation	divide both sides by 3	divide both sides by 3	divide both sides by 4	divide both sides by 2
↓ Output	$x = 6$	$x = 8$	$x = 8$	$x = 4$

Algebra I Solving Equations with Variables on Both Sides

	1.	2.	3.	4.
Input	8x + 4 = 5x + 22	9x + 6 = 6x + 30	5x + 10 = x + 42	7x + 5 = 5x + 13
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract x from both sides	Subtract 5x from both sides
↓ Output	3x + 4 = 22	3x + 6 = 30	4x + 10 = 42	2x + 5 = 13
↓ Second Operation	subtract 4 from both sides	subtract 6 from both sides	Subtract 10 from both sides	Subtract 5 from both sides
↓ Output	3x = 18	3x = 24	4x = 32	2x = 8
↓ Third Operation	divide both sides by 3	divide both sides by 3	divide both sides by 4	divide both sides by 2
↓ Output	x = 6	x = 8	x = 8	x = 4

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	$7x - 3 = 5x + 11$	$9x - 6 = 6x + 15$	$5x - 6 = 2x + 18$	$8x - 14 = x + 21$
↓ First Operation	subtract $5x$ from both sides	subtract $6x$ from both sides	subtract $2x$ from both sides	
↓ Output				
↓ Second Operation	add 3 to both sides	add 6 to both sides		
↓ Output				
↓ Third Operation	divide both sides by 2			
↓ Output				

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	
↓ Output				
↓ Second Operation	add 3 to both sides	add 6 to both sides		
↓ Output				
↓ Third Operation	divide both sides by 2			
↓ Output				

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	
↓ Output	2x			
↓ Second Operation	add 3 to both sides	add 6 to both sides		
↓ Output				
↓ Third Operation	divide both sides by 2			
↓ Output				

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	
↓ Output	2x – 3 =			
↓ Second Operation	add 3 to both sides	add 6 to both sides		
↓ Output				
↓ Third Operation	divide both sides by 2			
↓ Output				

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	
↓ Output	2x – 3 = 11			
↓ Second Operation	add 3 to both sides	add 6 to both sides		
↓ Output				
↓ Third Operation	divide both sides by 2			
↓ Output				

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	
↓ Output	2x – 3 = 11			
↓ Second Operation	add 3 to both sides	add 6 to both sides		
↓ Output				
↓ Third Operation	divide both sides by 2			
↓ Output				

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	
↓ Output	2x – 3 = 11			
↓ Second Operation	add 3 to both sides	add 6 to both sides		
↓ Output				
↓ Third Operation	divide both sides by 2			
↓ Output				

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	
↓ Output	2x – 3 = 11			
↓ Second Operation	add 3 to both sides	add 6 to both sides		
↓ Output	2x =			
↓ Third Operation	divide both sides by 2			
↓ Output				

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	
↓ Output	2x – 3 = 11			
↓ Second Operation	add 3 to both sides	add 6 to both sides		
↓ Output	2x = 14			
↓ Third Operation	divide both sides by 2			
↓ Output				

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	
↓ Output	2x – 3 = 11			
↓ Second Operation	add 3 to both sides	add 6 to both sides		
↓ Output	2x = 14			
↓ Third Operation	divide both sides by 2			
↓ Output				

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	$7x - 3 = 5x + 11$	$9x - 6 = 6x + 15$	$5x - 6 = 2x + 18$	$8x - 14 = x + 21$
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	
↓ Output	$2x - 3 = 11$			
↓ Second Operation	add 3 to both sides	add 6 to both sides		
↓ Output	$2x = 14$			
↓ Third Operation	divide both sides by 2			
↓ Output				

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	
↓ Output	2x – 3 = 11			
↓ Second Operation	add 3 to both sides	add 6 to both sides		
↓ Output	2x = 14			
↓ Third Operation	divide both sides by 2			
↓ Output	x =			

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	
↓ Output	2x – 3 = 11			
↓ Second Operation	add 3 to both sides	add 6 to both sides		
↓ Output	2x = 14			
↓ Third Operation	divide both sides by 2			
↓ Output	x = 7			

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	
↓ Output	2x – 3 = 11			
↓ Second Operation	add 3 to both sides	add 6 to both sides		
↓ Output	2x = 14			
↓ Third Operation	divide both sides by 2			
↓ Output	x = 7			

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	
↓ Output	2x – 3 = 11			
↓ Second Operation	add 3 to both sides	add 6 to both sides		
↓ Output	2x = 14			
↓ Third Operation	divide both sides by 2			
↓ Output	x = 7			

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	
↓ Output	2x – 3 = 11	3x		
↓ Second Operation	add 3 to both sides	add 6 to both sides		
↓ Output	2x = 14			
↓ Third Operation	divide both sides by 2			
↓ Output	x = 7			

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	$7x - 3 = 5x + 11$	$9x - 6 = 6x + 15$	$5x - 6 = 2x + 18$	$8x - 14 = x + 21$
↓ First Operation	subtract $5x$ from both sides	subtract $6x$ from both sides	subtract $2x$ from both sides	
↓ Output	$2x - 3 = 11$	$3x - 6 =$		
↓ Second Operation	add 3 to both sides	add 6 to both sides		
↓ Output	$2x = 14$			
↓ Third Operation	divide both sides by 2			
↓ Output	$x = 7$			

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	
↓ Output	2x – 3 = 11	3x – 6 = 15		
↓ Second Operation	add 3 to both sides	add 6 to both sides		
↓ Output	2x = 14			
↓ Third Operation	divide both sides by 2			
↓ Output	x = 7			

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	
↓ Output	2x – 3 = 11	3x – 6 = 15		
↓ Second Operation	add 3 to both sides	add 6 to both sides		
↓ Output	2x = 14			
↓ Third Operation	divide both sides by 2			
↓ Output	x = 7			

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	
↓ Output	2x – 3 = 11	3x – 6 = 15		
↓ Second Operation	add 3 to both sides	add 6 to both sides		
↓ Output	2x = 14			
↓ Third Operation	divide both sides by 2			
↓ Output	x = 7			

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	
↓ Output	2x – 3 = 11	3x – 6 = 15		
↓ Second Operation	add 3 to both sides	add 6 to both sides		
↓ Output	2x = 14	3x =		
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Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	$7x - 3 = 5x + 11$	$9x - 6 = 6x + 15$	$5x - 6 = 2x + 18$	$8x - 14 = x + 21$
↓ First Operation	subtract $5x$ from both sides	subtract $6x$ from both sides	subtract $2x$ from both sides	
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Algebra I Solving Equations with Variables on Both Sides

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Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
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Algebra I Solving Equations with Variables on Both Sides

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Algebra I Solving Equations with Variables on Both Sides

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Algebra I Solving Equations with Variables on Both Sides

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Algebra I Solving Equations with Variables on Both Sides

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Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
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Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
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Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
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Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	$7x - 3 = 5x + 11$	$9x - 6 = 6x + 15$	$5x - 6 = 2x + 18$	$8x - 14 = x + 21$
↓ First Operation	subtract $5x$ from both sides	subtract $6x$ from both sides	subtract $2x$ from both sides	
↓ Output	$2x - 3 = 11$	$3x - 6 = 15$	$3x$	
↓ Second Operation	add 3 to both sides	add 6 to both sides		
↓ Output	$2x = 14$	$3x = 21$		
↓ Third Operation	divide both sides by 2	divide both sides by 3		
↓ Output	$x = 7$	$x = 7$		

Algebra I Solving Equations with Variables on Both Sides

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Input	$7x - 3 = 5x + 11$	$9x - 6 = 6x + 15$	$5x - 6 = 2x + 18$	$8x - 14 = x + 21$
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↓ Second Operation	add 3 to both sides	add 6 to both sides		
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Algebra I Solving Equations with Variables on Both Sides

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Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
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Algebra I Solving Equations with Variables on Both Sides

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Algebra I Solving Equations with Variables on Both Sides

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Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
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Algebra I Solving Equations with Variables on Both Sides

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Algebra I Solving Equations with Variables on Both Sides

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Algebra I Solving Equations with Variables on Both Sides

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↓ Second Operation	add 3 to both sides	add 6 to both sides	Add 6 to both sides	
↓ Output	2x = 14	3x = 21	3x = 24	
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Algebra I Solving Equations with Variables on Both Sides

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Algebra I Solving Equations with Variables on Both Sides

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Algebra I Solving Equations with Variables on Both Sides

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Algebra I Solving Equations with Variables on Both Sides

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Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
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↓ Third Operation	divide both sides by 2	divide both sides by 3	divide both sides by 3	
↓ Output	x = 7	x = 7	x =	

Algebra I Solving Equations with Variables on Both Sides

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Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
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↓ Output	2x = 14	3x = 21	3x = 24	
↓ Third Operation	divide both sides by 2	divide both sides by 3	divide both sides by 3	
↓ Output	x = 7	x = 7	x = 8	

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
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↓ Third Operation	divide both sides by 2	divide both sides by 3	divide both sides by 3	
↓ Output	x = 7	x = 7	x = 8	

Algebra I Solving Equations with Variables on Both Sides

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↓ Third Operation	divide both sides by 2	divide both sides by 3	divide both sides by 3	
↓ Output	x = 7	x = 7	x = 8	

Algebra I Solving Equations with Variables on Both Sides

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↓ Third Operation	divide both sides by 2	divide both sides by 3	divide both sides by 3	
↓ Output	x = 7	x = 7	x = 8	

Algebra I Solving Equations with Variables on Both Sides

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↓ Second Operation	add 3 to both sides	add 6 to both sides	Add 6 to both sides	
↓ Output	2x = 14	3x = 21	3x = 24	
↓ Third Operation	divide both sides by 2	divide both sides by 3	divide both sides by 3	
↓ Output	x = 7	x = 7	x = 8	

Algebra I Solving Equations with Variables on Both Sides

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↓ Third Operation	divide both sides by 2	divide both sides by 3	divide both sides by 3	
↓ Output	x = 7	x = 7	x = 8	

Algebra I Solving Equations with Variables on Both Sides

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↓ Output	2x = 14	3x = 21	3x = 24	
↓ Third Operation	divide both sides by 2	divide both sides by 3	divide both sides by 3	
↓ Output	x = 7	x = 7	x = 8	

Algebra I Solving Equations with Variables on Both Sides

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↓ Output	2x = 14	3x = 21	3x = 24	
↓ Third Operation	divide both sides by 2	divide both sides by 3	divide both sides by 3	
↓ Output	x = 7	x = 7	x = 8	

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
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↓ Third Operation	divide both sides by 2	divide both sides by 3	divide both sides by 3	
↓ Output	x = 7	x = 7	x = 8	

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
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↓ Output	2x = 14	3x = 21	3x = 24	
↓ Third Operation	divide both sides by 2	divide both sides by 3	divide both sides by 3	
↓ Output	x = 7	x = 7	x = 8	

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	Subtract x from both sides
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↓ Second Operation	add 3 to both sides	add 6 to both sides	Add 6 to both sides	Add 14 to both sides
↓ Output	2x = 14	3x = 21	3x = 24	7x =
↓ Third Operation	divide both sides by 2	divide both sides by 3	divide both sides by 3	
↓ Output	x = 7	x = 7	x = 8	

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	Subtract x from both sides
↓ Output	2x – 3 = 11	3x – 6 = 15	3x – 6 = 18	7x – 14 = 21
↓ Second Operation	add 3 to both sides	add 6 to both sides	Add 6 to both sides	Add 14 to both sides
↓ Output	2x = 14	3x = 21	3x = 24	7x = 35
↓ Third Operation	divide both sides by 2	divide both sides by 3	divide both sides by 3	
↓ Output	x = 7	x = 7	x = 8	

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	$7x - 3 = 5x + 11$	$9x - 6 = 6x + 15$	$5x - 6 = 2x + 18$	$8x - 14 = x + 21$
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	Subtract x from both sides
↓ Output	$2x - 3 = 11$	$3x - 6 = 15$	$3x - 6 = 18$	$7x - 14 = 21$
↓ Second Operation	add 3 to both sides	add 6 to both sides	Add 6 to both sides	Add 14 to both sides
↓ Output	$2x = 14$	$3x = 21$	$3x = 24$	$7x = 35$
↓ Third Operation	divide both sides by 2	divide both sides by 3	divide both sides by 3	
↓ Output	$x = 7$	$x = 7$	$x = 8$	

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
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↓ Output	2x – 3 = 11	3x – 6 = 15	3x – 6 = 18	7x – 14 = 21
↓ Second Operation	add 3 to both sides	add 6 to both sides	Add 6 to both sides	Add 14 to both sides
↓ Output	2x = 14	3x = 21	3x = 24	7x = 35
↓ Third Operation	divide both sides by 2	divide both sides by 3	divide both sides by 3	
↓ Output	x = 7	x = 7	x = 8	

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
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↓ Output	2x – 3 = 11	3x – 6 = 15	3x – 6 = 18	7x – 14 = 21
↓ Second Operation	add 3 to both sides	add 6 to both sides	Add 6 to both sides	Add 14 to both sides
↓ Output	2x = 14	3x = 21	3x = 24	7x = 35
↓ Third Operation	divide both sides by 2	divide both sides by 3	divide both sides by 3	divide both sides by 7
↓ Output	x = 7	x = 7	x = 8	

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	Subtract x from both sides
↓ Output	2x – 3 = 11	3x – 6 = 15	3x – 6 = 18	7x – 14 = 21
↓ Second Operation	add 3 to both sides	add 6 to both sides	Add 6 to both sides	Add 14 to both sides
↓ Output	2x = 14	3x = 21	3x = 24	7x = 35
↓ Third Operation	divide both sides by 2	divide both sides by 3	divide both sides by 3	divide both sides by 7
↓ Output	x = 7	x = 7	x = 8	x =

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	$7x - 3 = 5x + 11$	$9x - 6 = 6x + 15$	$5x - 6 = 2x + 18$	$8x - 14 = x + 21$
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	Subtract x from both sides
↓ Output	$2x - 3 = 11$	$3x - 6 = 15$	$3x - 6 = 18$	$7x - 14 = 21$
↓ Second Operation	add 3 to both sides	add 6 to both sides	Add 6 to both sides	Add 14 to both sides
↓ Output	$2x = 14$	$3x = 21$	$3x = 24$	$7x = 35$
↓ Third Operation	divide both sides by 2	divide both sides by 3	divide both sides by 3	divide both sides by 7
↓ Output	$x = 7$	$x = 7$	$x = 8$	$x = 5$

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	Subtract x from both sides
↓ Output	2x – 3 = 11	3x – 6 = 15	3x – 6 = 18	7x – 14 = 21
↓ Second Operation	add 3 to both sides	add 6 to both sides	Add 6 to both sides	Add 14 to both sides
↓ Output	2x = 14	3x = 21	3x = 24	7x = 35
↓ Third Operation	divide both sides by 2	divide both sides by 3	divide both sides by 3	divide both sides by 7
↓ Output	x = 7	x = 7	x = 8	x = 5

Algebra I Solving Equations with Variables on Both Sides

	5.	6.	7.	8.
Input	7x – 3 = 5x + 11	9x – 6 = 6x + 15	5x – 6 = 2x + 18	8x – 14 = x + 21
↓ First Operation	subtract 5x from both sides	subtract 6x from both sides	subtract 2x from both sides	Subtract x from both sides
↓ Output	2x – 3 = 11	3x – 6 = 15	3x – 6 = 18	7x – 14 = 21
↓	add 3	add 6	Add 6	Add 14
↓ Output	2x = 14	3x = 21	3x = 24	7x = 35
↓ Third Operation	divide both sides by 2	divide both sides by 3	divide both sides by 3	divide both sides by 7
↓ Output	x = 7	x = 7	x = 8	x = 5

Good luck on worksheet #7 !!