

Lesson 3.1 Solving Linear Equations with one Variable (Day 5b)

Math Warm Up

Write the problem AND answers in the table below.

	My Thinking	Correct/Compare
Divide any number by itself		
Multiply any number by itself		

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Math Warm Up

Write the problem AND answers in the table below.

	My Thinking	Correct/Compare
Divide any number by itself		$\frac{x}{x}$
Multiply any number by itself		x^2

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Objective

TSW solve linear equations with one variable by simplifying expressions using distributive property, laws of equality, and combining like terms.



▶ Linear equations can be used to solve mathematical and real-world problems. A linear equation with one variable can have one solution, no solution, or infinitely many solutions.

Common Core State Standards *8.EE.7 Solve linear equations with one variable*

8EE 7 Solve linear equations in one variable.

8EE 7a Give examples of linear equations in one variable with one solution, infinity many solutions, or no solutions

8EE 7b Solve linear equations with rational number coefficients

- **Mathematical Practices** *1 Solve problems/persevere 2 Reason 4 Model Mathematics 7 Look for and use structure*

The objective uses several math vocabulary terms...

*distributive property

*laws of equality

*combining like terms



*Can you create a wordtoon define one of these terms?

<http://safeshare.tv/w/JKoxOhkyoS>

Lesson 3.1 Solving Linear Equations with one Variable (Day 5)

Guided Practice

2 $0.6(1 - x) + 0.2(x - 5) = 10$

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Guided Practice

2 $0.6(1 - x) + 0.2(x - 5) = 10$ $x = -26$

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Guided Practice

3 $\frac{3x}{5} + \frac{x - 1}{3} = \frac{2}{15}$

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Guided Practice

3 $\frac{3x}{5} + \frac{x-1}{3} = \frac{2}{15}$ $x = \frac{1}{2}$

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Independent Practice #1-3

Challenge- Solve created equation or word-toon

Name: _____

Independent Practice #1-3

Practice 3.1

1 $4x - (10 - x) = \frac{15}{2}$

2 $0.5(x + 1) - 1 = 0.2$

Homework

Name: _____ Date: _____

Thursday Homework Evaluating Expressions
#2-12

Evaluate each expression.

1. $10 \div 2 + 8$	2. $4(9) - 36 \div 3$
3. $24 - 12 \div 4$	4. $25 + 2 \cdot 8 \div 4$
5. $49 - (3^2 + 8 \cdot 3)$	6. $2(20 - 5) + \frac{34 - 14}{4}$
7. $(27 + 24)(27 - 24)$	8. $2^3 \div 4 + 3 \times 6$
9. $(4 + 4) \cdot 4 + 4 \div 4$	10. $3[(8 - 2) - 5] + 7$
11. $\frac{28 - 7}{4^2 - 13}$	12. $(15 - 9)^2 + (5 + 4)$

Challenge

Evaluate each expression if $n = 4$, $p = 3$, and $t = 6$.

13. $3n + p$	14. $t - 2p$
15. $3p - n + 4$	16. $(np)^2$
17. np^2	18. $5(2t - n)$
19. $p(n + t)$	20. $6t^2 - t$

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Lesson Check —#3 Solve linear equation with one variable

