Equations Project

By: Taylor and Tyler

10-8-15 5th

Introduction 1st 9 Weeks Project

Objective - Create a google presentation to show the knowledge of writing and solving equations. Including properties of real and equality.

Definition of equation- a statement that the values of two mathematical expressions are equal (indicated by the sign =).

Multiplicative inverse - one of a pair of numbers whose product is 1. The reciprocal of 2/3 is 3/2; the multiplicative inverse of 7 is 1/7.

Addition property of equality - if the same amount is added to both sides of an equation, then the equality is still true.

Subtraction property of equality- if we subtract from one side of an equation, we also must subtract from the other side of the equation to keep the equation the same.

1) 4x=2/5

$4x = \frac{2}{5}$

/4 /4

x =4/1 * 5/2

x = 10

1. Didvid by 4 not 4X just 4.

2. To divide by 4 you have to use <u>multiplicative inverse.</u>

3. This is because of inverse property. To divide fractions you have to flip the second fraction.

4. Then you get x=10

By: Taylor Gattis

2) $x - \frac{1}{4} = \frac{2}{5}$

1. Start of adding ~~¼ + ¼~~ they cross out.
2. ⅖+¼= 13/20.
3. You drop down the x. x=13/20.

x-¼=⅖

+ ¼ +¼

x=13/20

$$\frac{1}{4} + \frac{2}{5} =$$

$$\frac{5}{20} + \frac{8}{20} = \frac{13}{20}$$

By: Tyler Bachtell

3) $15 - \frac{2}{3}x = 20$

$15 - \frac{2}{3}x = 20$

$-15 \qquad -15$

$-\frac{2}{3}x = 5$

$/-\frac{2}{3} \quad = /-\frac{2}{3}$

5/1 divided by $-\frac{2}{3}$

5/1 * -3/2

x = - 7.5

1. First put all of your regular numbers on one side.

2. So you would do subtraction property of equality by subtracting 15 on both sides.

3. You would keep you negative by the $\frac{2}{3}$

4. Divide by $-\frac{2}{3}$ by 5/1

5. You would do keep the first fraction change the symbol to multiplication then flip the third fraction.

Which is multiplicative inverse.

By: Taylor Gattis

4) 5-2(x-3)=-23

1. Start of multiplying 2*x and 2*3.
2. Then subtract 6 they cross out.
3. Add 6 to -23=-17.
4. Subtract 5 they cross out, then subtract -17-5=-22
5. Finally divide -2 they cross out, then divide -2- by -22=11. X=11.

5-2(x-3)=-23

5-2x-6=-23

+6 +6

5-2x = -17

-5 -5

-2x= -22 x=11

-2 -2

By: Tyler Bachtell

Writing Equations

Ben has $75 dollars and wants a computer that is $100 dollars. He is going to save $5 dollars a week. How many weeks will he have to save to buy the computer?

$$\underline{75 + 5x = 10}$$

Solve 75 + 5x = 100

$$75 + 5x = 100$$

$$-75 \qquad -75$$

$$5x = 25$$

$$/5 \qquad /5$$

$$x = 5$$

1.Using <u>subtraction property of equality</u> you subtract 75 from both sides.

2.To isolate the variable you have to divide by 5.

3. When you divide by 25 by 5 you 5. Therefore x = 5