

Warmup 8/(76 - 76 + 15 - 0)

Created by Stephon Price

1. Solve:

$$\frac{4}{5}x = \frac{1}{3}x + 14$$



2. Error Analysis:

What did Mr. Lischwe do wrong?

$$\begin{aligned} 6x + 3 &= 3x + 6 \\ -3x &\quad -3x \\ \hline 3x + 3 &= 6 \\ \frac{3x}{3} + 3 &= \frac{6}{3} \\ x + 3 &= 2 \\ -3 &\quad -3 \\ \hline x &= -1 \end{aligned}$$

Warmup reminders

- Try to put all of the warmups for the week on the same piece of paper.
- You will gain or lose points on LiveSchool depending on if you turn in warmups or if you are missing a few days
- If you are ever absent, just say "Thursday - absent" or something so I know not to count off
- ORGANIZATION IS KEY!!! If you struggle with it, try to come up with a "system" that works for you

Return of the Quizzes

Retake Procedures

Grade Sheet Calculator

Agenda for the Week

Monday and Tuesday- Solving Equations

Wednesday and Thursday- Solving for a Variable

Friday- Quiz

Objective for the Day

- Solve more difficult equations

$$24 = 6(-x - 3)$$

$$x = -7$$

$$\frac{11}{6} = \frac{1}{3} + p$$

$$p = 3/2$$

$$-\frac{3}{4}x = 21$$

$$x = -28$$

$$\frac{2}{5}x - 10 = 20$$

$$x = 75$$

$$\frac{2}{3}x - 2 = \frac{1}{2}x + 4$$

$$x = 36$$

$$\frac{1}{2}(b+6) = \frac{3}{2}b - 1$$

$$\frac{1}{2}(b+6) = \frac{3}{2}b - 1$$

$$\frac{1}{2}b + 3 = \frac{3}{2}b - 1$$

$$\frac{-1}{2}b \quad \frac{-1}{2}b$$

$$3 = b - 1$$

$$\frac{+1}{+1} \quad \frac{+1}{+1}$$

$$4 = b$$

What is the solution to these equations?

$$x + 1 = x$$

no solution

$$x + 2 = x + 2$$

infinitely many solutions/ all real numbers

Solve $10 - 5x + 1 = 7x + 11 - 12x$.

$$10 - 5x + 1 = 7x + 11 - 12x$$

$$10 - 5x + 1 = 7x + 11 - 12x$$

$$11 - 5x = 11 - 5x$$

$$\frac{+5x}{+5x} \quad \frac{+5x}{+5x}$$

$$11 = 11 \checkmark$$

The equation $10 - 5x + 1 = 7x + 11 - 12x$ is an identity. All values of x will make the equation true. All real numbers are solutions.

Solve $12x - 3 + x = 5x - 4 + 8x$.

$$12x - 3 + x = 5x - 4 + 8x$$

$$12x - 3 + x = 5x - 4 + 8x$$

$$13x - 3 = 13x - 4$$

$$\frac{-13x}{-3} = \frac{-13x}{-4}^*$$

The equation $12x - 3 + x = 5x - 4 + 8x$ is a contradiction. There is no value of x that will make the equation true. There are no solutions.

NO SOLUTION OR INFINITELY MANY?

$$\square (X - 2) - (X - 3) = 10$$

no solution

$$\square (X + 7) - (X - 3) = 10$$

infinitely many solutions

Homework: Worksheet!