

Created by Mr. Lischwe

Warmup 10/ (Solution of $\frac{1}{2}x = \frac{27}{2}$)

1. Create your own equation that has a solution of 5. Your equation should have variables on both sides.
2. Create your own equation that has a solution of $\frac{1}{2}$.

Equations Worksheet:

CHECK YOUR ANSWERS. Write the correct answer in a different color if you got it wrong!

- | | | |
|---|--|--------------|
| 1. $x = 3$ | 10. $n = 15$ | 19. $g = 50$ |
| 2. $x = \frac{13}{3}$ or $4\frac{1}{3}$ | 11. $n = 3$ | 20. $g = -4$ |
| 3. $x = 6$ | 12. $n = -10$ | 21. (check) |
| 4. $x = 45$ | 13. $n = \frac{13}{2}$ or $6\frac{1}{2}$ | |
| 5. (check) | 14. $p = 7$ | |
| 6. $a = 32$ | 15. $p = -10$ | |
| 7. $a = -5$ | 16. $p = 8$ | |
| 8. $a = \frac{27}{10}$ or $2\frac{7}{10}$ | 17. $p = \frac{9}{8}$ | |
| 9. (check) | 18. $g = 5$ | |

ON THE BACK (AND in a different color):

- You must **redo** the ones you got wrong until you figure out how to get the right answer.
- If you got a 100% or when you have finished your corrections, you have permission to **float around and help people!** Take your worksheet with you so that you can help them better.

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Equations with the Distributive Property

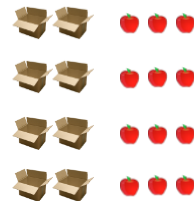
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Objective:**-Solve equations using the distributive property**

A visual way to understand the distributive property:

$$4(2x + 3)$$

Q: How would I show it with boxes and apples?

COPY!!!

Distributive Property

- Distribute:

$$4(x - 2) \qquad 4x - 8$$

$$3(4x + 1) \qquad 12x + 4$$

$$-2(3a - 4b + 7) \qquad -6a + 8b - 14$$

For your notes:

Distribute and combine like terms:

$$-4(5a - 3) + 12a - 8$$

$$4(2n + 3) = 20$$

- What does the $(2n + 3)$ part have to equal???

From the pretest:

$$4(2n + 3) = 20$$

2 ways to solve:

$$\begin{array}{r} 4(2n + 3) = 20 \\ \underline{4 \qquad 4} \\ 2n + 3 = 5 \\ \underline{-3 \quad -3} \\ 2n = 2 \\ n = 1 \end{array}$$

$$\begin{array}{r} 4(2n + 3) = 20 \\ 8n + 12 = 20 \\ \underline{-12 \quad -12} \\ 8n = 8 \\ n = 1 \end{array}$$

For your notes:

$$6(3x - 2) = 24$$

- Solve by distributing first:
- Solve by dividing by 6 first:

Whiteboards! (1 small one per person)

Solve:

$$3(x + 8) = 18$$

Solve:

$$-2(4x - 1) = 34$$

Solve:

$$5(2x + 1) = 23$$

Solve:

$$3(x - 4) = x + 8$$

Solve:

$$3(5x - 4) = 6(2x + 1)$$

Solve:

$$10(3y - 2) - 20y = 70$$

Homework

- p. 157 (1, 2)
- *****THE ANSWER KEY TO LAST NIGHT'S HOMEWORK (THE EQUATION WORKSHEET) WILL BE ON MY WEBSITE. A GREAT STUDY TOOL!!!*****