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

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 ½.

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

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

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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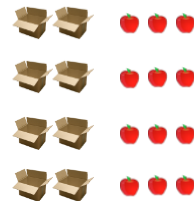**Equations with the Distributive Property**

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)   **4x – 8**

3(4x + 1)   **12x + 4**

-2(3a – 4b + 7)   **-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:

$$\frac{4(2n+3)}{4} = \frac{20}{4}$$

2n + 3 = 5

-3   -3

2n   = 2

n = 1

4(2n + 3) = 20

8n + 12 = 20

-12   -12

8n   = 8

n = 1

For your notes:

6(3x – 2) = 24

1. **Solve by distributing first:**

2. **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!!!*****