Warmup 11/ $-(2-16)$

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- ***Make sure there is a whiteboard, marker, and eraser in your desk!***

In this warmup, you are solving the same equation FOUR DIFFERENT WAYS:

$4x + 30 = -2x + 6$

1) Solve the equation by adding 2x to both sides first.

2) Solve the equation by subtracting 4x from both sides first.

3) Solve the equation by subtracting 30 from both sides first.

4) Solve the equation by subtracting 6 from both sides first.

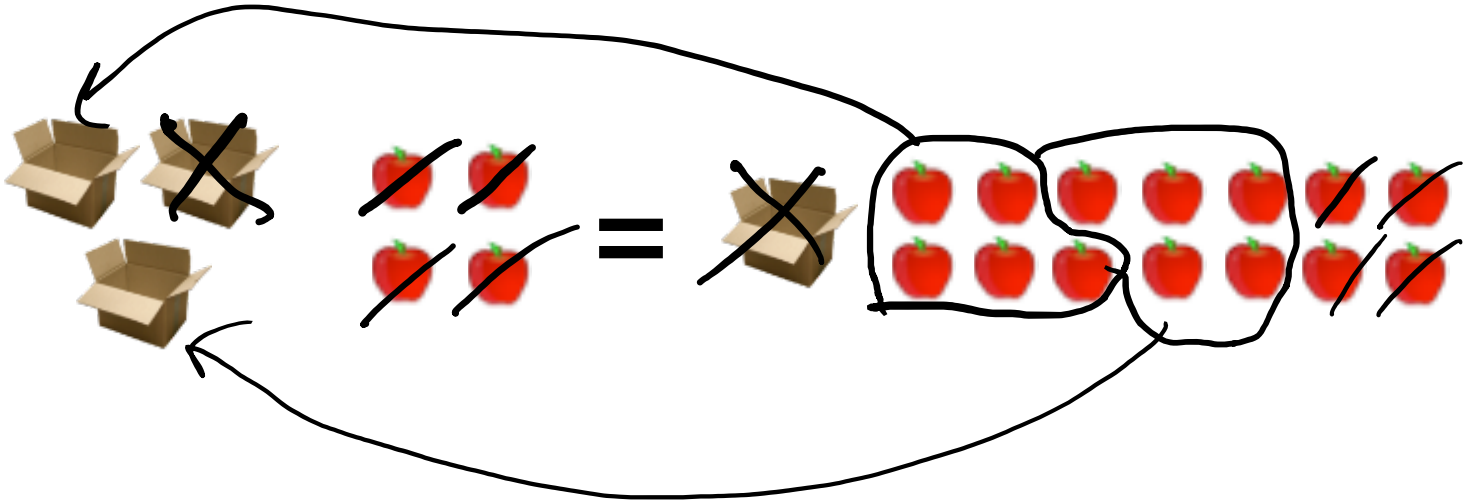
WHITEBOARDS

Draw a boxes & apples diagram and use it to solve:

- $3x + 4 = x + 14$


= x

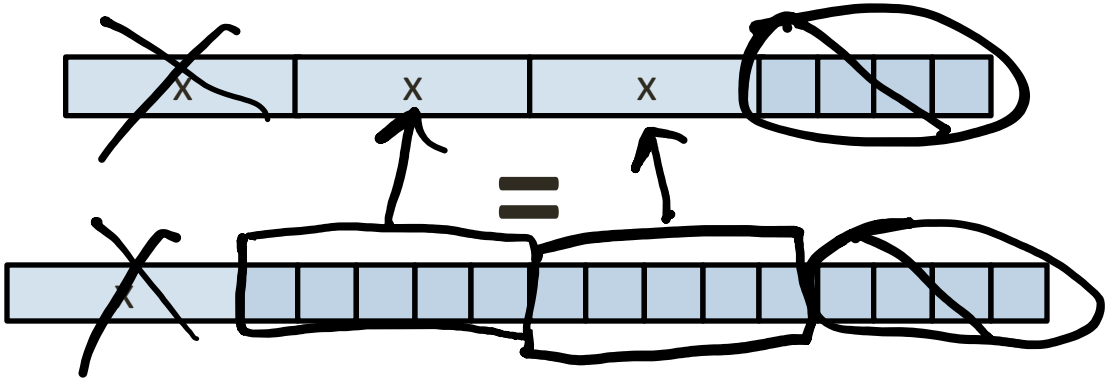

= 1



x = 5

Draw a bar diagram and use it to solve:

- **3x + 4 = x + 14**



Solve:

- $-\frac{2}{7}x + 14 = \frac{4}{7}x - 10$

$+\frac{2}{7}x \qquad +\frac{2}{7}x$

$14 = \frac{6}{7}x - 10$

$+10 \qquad +10$

$\left(\frac{7}{6}\right)24 = \frac{6}{7} \times \left(\frac{7}{6}\right)$

$28 = x$

$\frac{7}{6} \cdot \frac{24}{1} = \frac{168}{6} = 28$

TONIGHT'S HOMEWORK

- Complete the "Study Reflection"

- You must choose (at least) two of the ways to study **and write about why they were useful to you!**

Word Problems

- For each problem:
  1) Define a variable.
  2) Write an equation representing the situation.
  3) Solve the equation and describe the meaning of your solution.

- Meigs' Mathletes need money to travel to a competition. They have raised $560. They need to raise a total of $1680. Write and solve an equation to find how much more they need.

1) m = amount of money they need

2) m + 560 = 1680

3) m = 1120

They need $1120 more.

1) Define a variable.
2) Write an equation representing the situation.
3) Solve the equation and describe the meaning of your solution.

- You are buying some shirts. You have to pay $10 for shipping, plus $8 per shirt. You have $66 to spend.

1) Define a variable.
2) Write an equation representing the situation.
3) Solve the equation.
4) Describe the meaning of your solution.

1) s = # of shirts you can buy
2) 8s + 10 = 66
3) s = 7
You can buy 7 shirts

- A group of people went to the movies. They each spent $6.50 per ticket. They spent $17.50 together on snacks. Altogether, they paid $63.00.

    1) Define a variable.
    2) Write an equation representing the situation.
    3) Solve the equation.
    4) Describe the meaning of your solution.

1) p = # of people

2) 6.50p + 17.50 = 63.00

3) p = 7

7 people went to the movies.

- You enter the fair with $35. You buy 14 tickets, which all cost the same amount. After you buy the tickets, you have $7 left.

    1) Define a variable.
    2) Write an equation representing the situation.
    3) Solve the equation.
    4) Describe the meaning of your solution.

1) c = cost of a ticket

2) 35 – 14c = 7

3) c = 2

Each ticket is $2.

- **Billy started with $7 and made $3 per week. Bobby started with $2 and made $4 per week. How many weeks will it take for them to have the same amount of money? How much money will they both have?**

1) Define a variable.
2) Write an equation representing the situation.
3) Solve the equation.
4) Describe the meaning of your solution.

1) w = # of weeks
2) 7 + 3w = 2 + 4w
3) w = 5
4) After 5 weeks, they will have the same amount of money.
They will each have $22.

- Write a story problem that could be modeled by the equation **3x + 8 = 20.**