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Warm Up 11/ $\left(\frac{(11^2 - (3^4 - 80))}{40}\right)$

Get a whiteboard, marker, and eraser, and put it in your desk. If there is an empty seat at your table, get one for that desk too.

1. $-150 + 60$
2. $18 - 23$
3. $-6 - 6$
4. Work out the problem from the date.

Finish Partner Activity

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Equations w/ Variables on Both Sides

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Objective:

- Solve equations with variables on both sides
- Understand the difference with when they're on the same side and when they're not

Bar Diagrams...

Draw a bar diagram for each equation.

$$3x = x + 8$$

$$3x + x = 8$$

For each equation: (In your notes)

- Draw a bar diagram
- Use the diagram to show how much x is
- Show the steps in the equation to solve it. Your steps should match the picture!

$$4x = 2x + 12$$

$$4x + 2x = 12$$

- 2 variable terms on the SAME SIDE:
 - Combine like terms
- 2 variable terms on OPPOSITE SIDES:
 - "Get rid" of one of them: add or subtract the x's on both sides the same way you do with regular numbers

WHITEBOARDS

Whiteboards

$$3x + 2x = 45$$

$$x = 9$$

Early finishers: Check your answer!

Whiteboards

$$4x = 2x + 18$$

$$x = 9$$

Early finishers: Check your answer!

Whiteboards

$$6x - 2x = 88$$

$$x = 22$$

Early finishers: Check your answer!

Whiteboards

$$5x + 4 = 2x + 16$$

$$x = 4$$

Early finishers: Check your answer!

Whiteboards

$$-3x + 16 = x + 20$$

$$x = -1$$

Early finishers: Check your answer!

Whiteboards

$$2x + 9 + 5x + 8 = 24$$

$$x = 1$$

Early finishers: Check your answer!

Whiteboards

$$5x - 8 = x + 5$$

$$x = \frac{13}{4} \text{ or } 3.25$$

Early finishers: Check your answer!

Whiteboards

$$2x + 10 = 8x - 20$$

$$x = 5$$

Early finishers: Check your answer!

Whiteboards

$$4x + 4 = x - 11$$

$$x = -5$$

Early finishers: Check your answer!

Some for your notes:

SOLVE AND CHECK:

$$-3x + 31 = 2x + 6$$

Some for your notes...

SOLVE

- $5x + 10 - 3x = 12 - 4x - 44$

HOMEWORK

Pink Equations Worksheet

We will be spending a lot of time on Monday going over/correcting this. Don't freak out if there are some that are confusing you!!!