**Morgan LS MATH: Work Packet through Spring Break**

*Keep up on Google Classroom for daily schedule, videos/notes/resources, and places to submit homework if we are not in school.

*Plans for 4/6 through 4/15 are only IF our leave is extended. This is not something that has been set yet but you have the work if it is. Packets due first day back at school!

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friday, March 13th, 2020</td>
<td>TURN IN ANY MISSING WORK and DAILY OBJECTIVE FOR MARCH. THIS IS YOUR FINAL GRADE FOR QUARTER 3! Create Packets for leave and go through this schedule. Email Mrs. Morgan with any questions at <a href="mailto:tmorgan@laca.org">tmorgan@laca.org</a></td>
</tr>
<tr>
<td>Monday, March 16th, 2020</td>
<td>Complete Multi-step equations Notes</td>
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<tr>
<td>Tuesday, March 17th, 2020</td>
<td>NO SCHOOL- Professional Development Day</td>
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<tr>
<td>Wednesday, March 18th, 2020</td>
<td>NO SCHOOL</td>
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<tr>
<td>Thursday, March 19th, 2020</td>
<td>NO SCHOOL</td>
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<tr>
<td>Friday, March 20th, 2020</td>
<td>NO SCHOOL- Calamity Day</td>
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<tr>
<td>Monday, March 23rd, 2020</td>
<td>NO SCHOOL- Calamity Day</td>
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<tr>
<td>Tuesday, March 24th, 2020</td>
<td>REMOTE SCHOOL- Start Combine like terms with the worksheet</td>
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<tr>
<td>Wednesday, March 25th, 2020</td>
<td>REMOTE SCHOOL- Finish Combine like terms with worksheet</td>
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<tr>
<td>Thursday, March 26th, 2020</td>
<td>REMOTE SCHOOL- Start Distributive Property using worksheet</td>
</tr>
<tr>
<td>Friday, March 27th, 2020</td>
<td>REMOTE SCHOOL- Finish Distributive Property using worksheet</td>
</tr>
<tr>
<td>March 28th - April 5th</td>
<td>SPRING BREAK!</td>
</tr>
<tr>
<td>Monday, April 6th, 2020</td>
<td>TBD- Complete Moving variables to one side of the equation using the worksheet</td>
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<tr>
<td>Tuesday, April 7th, 2020</td>
<td>TBD- Start Practicing Multi-step equations using the worksheet</td>
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<tr>
<td>Wednesday, April 8th, 2020</td>
<td>TBD- Finish working on Multi-step equations worksheet</td>
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<tr>
<td>Thursday, April 9th, 2020</td>
<td>TBD- Complete any 12 questions on the worksheet but don't do #5, 8 or 19</td>
</tr>
<tr>
<td>Monday, April 13th, 2020</td>
<td>TBD- Complete Multi Step inequalities Notes and Your Turn page</td>
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<tr>
<td>Tuesday, April 14th, 2020</td>
<td>TBD- Start Multi-step inequalities worksheet</td>
</tr>
<tr>
<td>Wednesday, April 15th, 2020</td>
<td>TBD- Finish Multi-step inequalities from yesterday</td>
</tr>
</tbody>
</table>
Combining Like Terms

Simplify each expression.

1) \(-6k + 7k\)

2) \(12r - 8 - 12\)

3) \(n - 10 + 9n - 3\)

4) \(-4x - 10x\)

5) \(-r - 10r\)

6) \(-2x + 11 + 6x\)

7) \(11r - 12r\)

8) \(-v + 12v\)

9) \(-8x - 11x\)

10) \(4p + 2p\)

11) \(5n + 11n\)

12) \(n + 4 - 9 - 5n\)

13) \(12r + 5 + 3r - 5\)

14) \(-5 + 9n + 6\)
Using the Distributive Property

Simplify each expression.

1) \(-6(a + 8)\)

2) \(4(1 + 9x)\)

3) \(6(-5n + 7)\)

4) \((9m + 10) \cdot 2\)

5) \((-4 - 3n) \cdot -8\)

6) \(8(-b - 4)\)

7) \((1 - 7n) \cdot 5\)

8) \(-6(x + 4)\)

9) \(5(3m - 6)\)

10) \((-6p + 7) \cdot -4\)

11) \(5(b - 1)\)

12) \((x + 9) \cdot 5\)
Solving Multi-Step Equations
Variables on Both Sides - Negative Coefficients

Name: ____________________ Date: __4/6__

1. 8x - 54 = 11x + 18

2. 2x - 103 = -5x + 30

3. x - 187 = 12x + 55

4. -138 + 12x = 42 + 3x

5. -4x - 121 = 122 + 5x

6. -11x - 92 = 34 - 5x

7. 7x - 46 = x + 110

8. -10x - 75 = 2x + 129

9. -14x - 107 = -9x + 28

10. -133 - 7x = 3x + 177

11. -130 - 7x = 4x + 57

12. -46 - 5x = -10x + 64
Multi-Step Equations

Solve each equation.

1) \(6a + 5a = -11\)

2) \(-6n - 2n = 16\)

3) \(4x + 6 + 3 = 17\)

4) \(0 = -5n - 2n\)

5) \(6r - 1 + 6r = 11\)

6) \(r + 11 + 8r = 29\)

7) \(-10 = -14v + 14v\)

8) \(-10p + 9p = 12\)

9) \(42 = 8m + 13m\)

10) \(a - 2 + 3 = -2\)

11) \(18 = 3(3x - 6)\)

12) \(30 = -5(6n + 6)\)
13) $37 = -3 + 5(x + 6)$

14) $-13 = 5(1 + 4m) - 2m$

15) $4(-x + 4) = 12$

16) $-2 = -(n - 8)$

17) $-6(1 - 5v) = 54$

18) $8 = 8v - 4(v + 8)$

19) $10(1 + 3b) = -20$

20) $-5n - 8(1 + 7n) = -8$

21) $8(4k - 4) = -5k - 32$

22) $-8(-8x - 6) = -6x - 22$

23) $8(1 + 5x) + 5 = 13 + 5x$

24) $-11 - 5a = 6(5a + 4)$
Multi-Step Equations

Solve each equation.

1) \(-20 = -4x - 6x\)

2) \(6 = 1 - 2n + 5\)

3) \(8x - 2 = -9 + 7x\)

4) \(a + 5 = -5a + 5\)

5) \(4m - 4 = 4m\)

6) \(p - 1 = 5p + 3p - 8\)

7) \(5p - 14 = 8p + 4\)

8) \(p - 4 = -9 + p\)

9) \(-8 = -(x + 4)\)

10) \(12 = -4(-6x - 3)\)

11) \(14 = -(p - 8)\)

12) \(-(7 - 4x) = 9\)

13) \(-18 - 6k = 6(1 + 3k)\)

14) \(5n + 34 = -2(1 - 7n)\)

15) \(2(4x - 3) - 8 = 4 + 2x\)

16) \(3n - 5 = -8(6 + 5n)\)

17) \(-(1 + 7x) - 6(-7 - x) = 36\)

18) \(-3(4x + 3) + 4(6x + 1) = 43\)

19) \(24a - 22 = -4(a - 6a)\)

20) \(-5(1 - 5x) + 5(-8x - 2) = -4x - 8x\)
Equations & Inequalities
(Solving Multi-step Equations)

A linear equation can be represented in the form of: \(ax + b = c\) where \(a\) and \(b\) are real numbers, with \(a \neq 0\).

**Example:**

\[4x - 5 = 11\]

**RECAP:** As shown earlier, we can easily solve \(4x - 5 = 11\) by:

But what about problems that aren’t in the traditional form of \(ax + b = c\)? How do we solve one-variable linear equations that have variables on both sides? Or what about equations with fractions or parenthesis?

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Equations & Inequalities
(Solving Multi-step Equations)

Your Turn

On a rating of 1-5, how comfortable are you with this concept? (5 is the highest)

1 2 3 4 5

1.) \(-3x + 9 = 15x - 9\)

2.) \(x + 3(1 + 2x) = 17\)

3.) \(\frac{3}{4} (x + 8) = 9\)

Reflection: I learned...
Directions: Cut out the following figures. Glue the figures on the areas that say "Glue Here." Make sure to glue them in their proper location. For example, the "Fractions" circle needs to be glued by the equation that has a fraction.

1. Variables on Both Sides

How would we go about solving the equation:

\[ 11x - 21 = 17 - 8x \]

2. Distributive Property

How would we go about solving the equation:

\[ 8x - (8 + 6x) = 20 \]

3. Fractions

How would we go about solving the equation:

\[ \frac{3}{4} (x + 9) = 15 \]
Equations & Inequalities
(Solving and Graphing Multi-step Inequalities)

Multi-step inequalities are solving just like multi-step equations. The only difference is that there is an equality sign. Solve them the same way but don't forget to think about what the inequality means!

Examples:

1.) $-3(x - 3) < 6$

Graph

2.) $2x - 3(x+3) > 14$

Graph

3.) $\frac{2}{3}x + 5 \geq -15$

Graph

Recap:
How do I “get rid” of a fraction?
Equations & Inequalities
(Solving and Graphing Multi-step Inequalities)

On a rating of 1-5, how comfortable are you with this concept? (5 is the highest)

1. \(5x + 13 > 7(x + 3)\)

Graph

\[\begin{array}{c}
-12 & -8 & -4 & 0 & 4 & 8 & 12 \\
\end{array}\]

2. \(-\frac{2}{5}x - 2 < 2\)

Graph

\[\begin{array}{c}
-14 & -12 & -10 & -8 & -6 & -4 & -2 \\
\end{array}\]

3. \(-\frac{1}{2}(x - 2) + 1 \leq 4\)

Graph

\[\begin{array}{c}
-12 & -8 & -4 & 0 & 4 & 8 & 12 \\
\end{array}\]

Reflection: I learned...