Bell Work

1.) Simplify:

$-6\mathrm{x} - 4 - 4x + 12$

2.) Solve:

$-6\mathrm{x} - 4 - 4x + 12 = 0$

3.) Solve:

$-6\mathrm{x} - 4 = -4x + 12$

From Last Time…

From Last Time

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Mixed Review

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ALGEBRA 3

Day 9

From Last Time: 1.5 Solving Inequalities

- **Linear Inequality**: linear equation with inequality symbol

  ($<$, $>$, $\geq$, $\leq$) instead of the equals sign (=)

*Remember you solve inequalities the same way you normally would with an = sign except….

If you have to *Multiply or Divide* both sides by the same *negative* number, then you must *reverse* the inequality.

WHY does this rule exist?!? How else could we solve??

Examples from last time

Solve and Graph the Following:

1.) $5 - 2x \leq 17$

2.) $\frac{2n}{5} - 3 \geq 7$ or $-\frac{n}{3} + 4 > 9$

3.) $1 \leq 2x - 5 \leq 7$

Quick Check for Understanding

- How would you describe the difference in your solution if there is a

  $>$, $<$ compared to a $\geq$, $\leq$? How are inequalities different from equations?

- How does your answer change if there are multiple inequalities instead of just one in the problem?

- Any questions before the quiz?

Unit 1 Quiz 1: Level 2

1.) Simplify

$6a + 4b - 6b + 6a + 10$

2.) Solve for x

$5x - 11 > 29$

3.) Solve for w

$\frac{3w}{4} + 7 = 16$

4.) Solve for a

$4d = ab - c$

Unit 1 Quiz 1: Level 3

5.) Solve for m

$2m + 4 + 3m = -2(m - 5)$

6.) Insert ( ) to make the following true using order of operations

$8 - 3 \cdot 2 + 4 \cdot 3 = 22$

Unit 1 Quiz 1: Level 4

7.) Write an equation and solve the following.

$A\ swimming\ pool\ either\ charges\ \$3\ a\ day\ to\ enter,$
$or\ you\ can\ purchase\ a\ pass\ for\ \$82, and\ then\ it$
$will\ only\ costs\ \$1\ a\ day\ to\ enter.$

$How\ many\ times\ would\ you\ have\ to\ go\ to$
$the\ pool\ to\ justify\ buying\ the\ pass?$

For Next Time…

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15, 17, 19, 20, 22, 25