Lesson 2.3- SWBAT solve equations with variables on both sides.

Kickoff- Solve and check each of the following equations.

1) $3(x + 8) = 27$ Check

2) $-3(2a - 1) = 8$ Check

3) $\frac{3}{2}(2x - 4) = 48$ Check

4) $-4(-2x - 1) = 20$ Check

Homework

1) c = -1
2) k = -8/3
3) a =7
4) p=-6
5) v = -6
6) x = 10

Steps to Solving Equations

1) Simplify both sides of the equal sign.
2) Find inverse operation (addition/subtraction first)
3) Perform the inverse operation.
4) Draw a line and cross out what you can.
5) Bring down everything else.
6) Repeat!

Example: $x + 3 = -2x + 9$

Examples: Solve each of the following and determine the type of solution.

1) $3x - 4 = x + 10$

2) $2x + 6 = 2x + 6$

3) $3x - 4 = 3x + 7$

Directions: Solve and check (if possible) each of the following equations.

4) $6r + 7 = 13 + 7r$ Check

5) $-7x - 3x + 2 = -8x - 8$ Check

6) $n - 3n = 14 - 4n$ Check

7) $5 + 2x = 2x + 7$ Check

8) $-10 + x + 4 - 5 = 7x - 5$ Check

9) $8x + 16x - 12 = 24x + 16 - 4$ Check

10) $-9x - 27 = 25 - 5x$ Check

11) $6x - 5 = 2x + 14 + 3x$ Check

12) $-3x - 26 = 5x + 26$ Check

13) $-8 + 7x = 5x + 18$ Check

14) $-25 + 2x + 3 = 21 + 5x + 20$ Check

15) $4x + 5 = -10 + 4x + 15$ Check