Name: _____

Solving Equations with Variables on Both Sides

Directions: Solve the following equations. Your goal is to get one variable alone on one side of the equal sign.

Example:	**Steps:**
$14d + 5 = 45 + 4d$	Original problem
$-4d \quad\quad -4d$	Move your variables to one side
$10d + 5 = 45$	
$\quad -5 \quad -5$	Eliminate by adding or subtracting
$\frac{10d}{10} = \frac{40}{10}$	Eliminate by multiplying or dividing
$d = 4$	Solution

1. $n - 3n = 14 - 4n$	**2.** $7a + 3 = 4a - 18$
3. $5x - 7 = -10x + 8$	**4.** $4 - 7k = 1 - 6k$
5. $22 + 4a = 3a - 13$	**6.** $6y - 9y - 4 = -2y - 2$

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Answer Key

1. $n = 7$
2. $a = -7$
3. $x = 1$
4. $k = 3$
5. $a = -35$
6. $y = -2$