**Solving Equations with Variables on Both Sides Name \_\_\_\_\_\_\_\_**

**Steps**:

1. Box the variable and draw the line down the equal sign.
2. Get your variable on one side and the number on the other. When you are getting like terms together and you must move a number over the line, you *must* use the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ operation. You will use either \_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_ for this step.
3. Solve by multiplying or dividing.

Examples:

1) 9m + 2 = 4m - 18 2) -15 + 6b = -8b + 13

3) Beth leaves home on her bike, riding at a steady rate of 8 mph. Her brother Ted leaves home on his bike half an hour later. He rides at a steady rate of 12 mph. How long after Beth leaves home will Ted catch up?

You try:

1) 4x + 4 = 2x + 36 2) 49 – 3m = 4m + 14

3) Car A leaves Eastown traveling at a steady rate of 50mph. Car B leaves Eastown 1 h later following Car A at a steady rate of 60 mph. How long after Car A leaves Eastown will Car B catch up?

Complete the practice on back…

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| 1. -4c – 6 = -2c  | 2. 9 + 5r = -17 – 8r  |
| 3. 5r + 6 – 2r = 7r – 10  | 4. -2(y + 6) = y + 3 + 2y |
| 5. 5(n - 3) = 2n - 6 | 6. 6(g + 3) = -2(g + 31)  |