**Equations with Variables on Both Sides**

**Solving Variables on Both Sides:**

Solve: 15 – 2x = -7x

Ex (1): 15 – 2x = -7x 🡪 15 – 2x = -7x 🡪 15 = -5x 🡪 **-3 = x**

+ 2x +2x -5 -5

Equation 🡪 Combining like terms 🡪 Isolating x 🡪 Answer

Add 2x on both sides Divide by -5

CFU:

1. -3x = 2x + 19

**Distributive Property:**

Solve: 6(4 – y) = 2y

Ex (2): 6(4 – y) = 2y 🡪 (6)(4) – (6)y = 2y 🡪 24 – 6y = 2y 🡪 24 – 6y = 2y 🡪

+ 6y +6y

Equation 🡪 Distribute 6 into 🡪 Two-Step 🡪 Combine like terms

Parentheses Equation Add 6y on both sides

24 = 8y 🡪  **3 = y**

8 8

Isolate y divide by 8 🡪 Answer

CFU:

1. 12(2w – 3) = 6w