

Solving Equations

Step 1: Distributive Property

Use the tic-tac-toe to help!

+	-	-
-	+	-
-	-	+

$$3(x - 4) + 8 = 10 - (2x - 3x)$$

$$3x - 12 + 8 = 10 - 2x + 3x$$

Remember:
Distribute means
MULTIPLY!

Step 2: Combine Like Terms

Use a t-chart!

+	-
8	12
	-8
	4

$$3x - 12 + 8 = 10 - 2x + 3x$$

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

Use a t-chart!

+	-
3x	2x
-2x	
1x	

Step 3: Inverse Operations

Remember: Inverse
means do the
OPPOSITE!

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

$$+4 \quad +4$$

$$3x = 14 + 1x$$

$$-1x \quad -1x$$

$$\frac{2x}{2} = \frac{14}{2}$$

$$x = 7$$

If they... then I...

+	-
-	+
×	÷
÷	×

Plug your answer in to check it!

$$3(x - 4) + 8 = 10 - (2x - 3x)$$

$$3(7 - 4) + 8 = 10 - [2(7) - 3(7)]$$

$$3(3) + 8 = 10 - (14 - 21)$$

$$9 + 8 = 10 - (-7)$$

$$17 = 17 \checkmark$$