# Combining Like Terms NOTES

Trip to Granny's Orchard: Johnny and Carmen get baskets and pick fruit from their grandparent's orchard on weekends. One weekend Johnny picks eight bananas and three apples and Carmen picks six apples and five bananas. They take the fruit back home where Little Ricky finds and eats two apples and four bananas that afternoon. This gave Little Ricky a tummy ache. How many apples and bananas are left?

_____
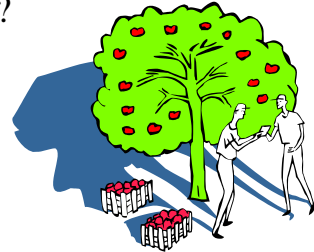
As an algebraean, you could replace apples with the variable a, and replace bananas with the variable b. Algebraically, the problem above would look like :

$$\underbrace{8b + 3a}_{\substack{Johnny's \\ Basket}} + \underbrace{6a + 5b}_{\substack{Carmen's \\ Basket}} - \underbrace{2a - 4b}_{\substack{LittleRicky's \\ Tummy}}$$

If you combine the positive a's you would get *9a* representing 9 total apples picked. If you combine the positive b's, you would get *13b* representing 13 total bananas picked, giving you *9a +13b* total picked. Little Ricky, by eating 2 apples and 4 bananas algebraically gives you *–2a-4b* so your expression becomes:

$$\underbrace{9a + 13b}_{\substack{total \\ fruit \\ picked}} - \underbrace{2a - 4b}_{\substack{total \\ fruit \\ eaten}}$$

If you combine *9a-2a* = _____ and *13b-4b* = _____

Therefore your final expression would be _____, representing _____ apples and _____ bananas. Were you correct? _____

Pizza slices are shaped like _____

Happy Meal Burgers are shaped like _____

Texas Toast is shaped like _____

Let's say the pizza slices are represented by the variable p, burgers are represented by the variable b, and Texas toast is represented by the variable t.

We had a meeting after school and the members brought 5 hamburgers, 7 pieces of pizza, and 3 Texas toast for snacks. We ate 3 of the burgers, 1 piece of toast and 4 pieces of pizza.

Write a problem describing the scenario above:

_____

Now circle the **5b** and **–3b**, triangle the **+7p** and **–4p**, square the **+3t** and **-t**

Combine the circles, triangles and squares to write a simplified expression.

_____

Same Last Name!
Now I will relate it in a different way. Pretend numbers are first names and letters are last names. When you combine like terms, combine them by last name!!

$6a + 4b - 7s + 2b - 2s - 2a$ _____

$2x^2 - 3x + 7y + 5x$ _____

Remember, names can be similar but not the exact same. Richards and Richardson are similar but not the exact same!!

This algebraically is called COMBINING LIKE TERMS!