

## Telling the Problems Apart

### Compare & Contrast

In math, when we have two parentheses coming together without a sign of operation, it is understood to be a multiplication problem. We leave out the “X” sign because in algebra it might be confused with the variable x.

Stay with me on this, often times, for the sake of convenience, we also leave out the “+” sign when adding integers.

**Example:**  $(+8) + (+5)$  can be written without the sign of operation  $\rightarrow 8 + 5$   
it still equals +13 or  $8 + 5 = 13$

**Example:**  $(+8) + (-5)$  can be written without the sign of operation  $\rightarrow 8 - 5$   
it still equals -13 or  $-8 - 5 = -13$

**Example:**  $(-8) + (+5)$  can be written without the sign of operation  $\rightarrow -8+5$   
it still equals. -3 or  $-8 + -5 = -3$

Now the question is: How do I know what operation to use if we eliminate the signs of operation?

**The answer: If you have two parentheses coming together as we do here,  $(5)(+3)$ , you need to recognize that as a multiplication problem.**

A subtraction problem will always have an additional sign, the sign of operation. For example,  $12 - (-5)$ , you need to recognize the negative sign inside the parentheses is a sign of value, the extra sign outside the parentheses is a sign of operation. It tells you to subtract.

**Now, if a problem does not have two parentheses coming together and it does not have an extra sign of operation, then it will be treated as an addition problem. For example,  $8 - 4$ ,  $12 + 5$ ,  $9 - 12$  are all samples of addition problems. Naturally, you would have to use the rule that applies.**