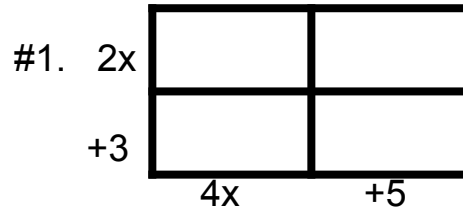


# Using Area Model to Multiply Polynomial Notes

## Important Information

- Expression- a combination of numbers, variables, and operations symbols.  $3x + 7$
- Terms- a single number OR variable OR numbers and variables multiplied together.  $3x$  OR  $7$  OR  $x^3$
- Coefficients- the number in front of a variable that is multiplied. In  $4x$ , 4 is the coefficient.
- Constant- is a number

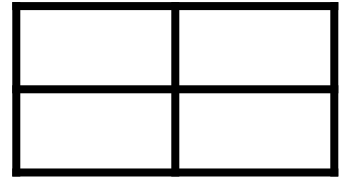
Examples-write the following polynomial as a product and as a sum.



Area as a product = Area as a sum

\_\_\_\_\_ = \_\_\_\_\_

#2.  $(x+1)(2x+5)$



Area as a product = Area as a sum

\_\_\_\_\_ = \_\_\_\_\_

## Things to remember!

- A polynomial is an expression with many terms.
- The area of a rectangle can be written as a product of its length times width OR as a sum of the areas of the smaller rectangles.
- $(x+4)(x+2) = x^2 + 6x + 8$   
 (length)(width) = sum of inside  
 area as a product = area as a sum

## More Examples

Create 2 examples of your own and write your answer as a product equal to a sum.

