Example 1: To multiply two binomials, an area model can be used.
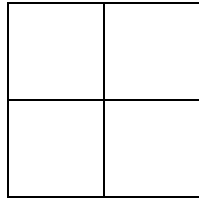
$(x + 3)(2x + 8)$ can be represented:
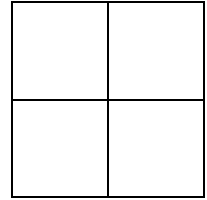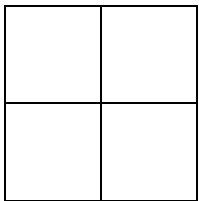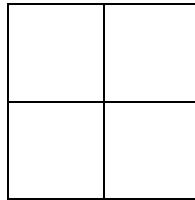
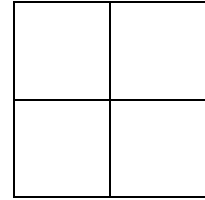Step 1:   Step 2:   Step 3:   Step 4:

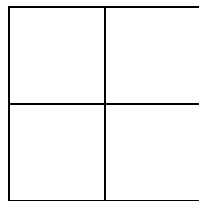Thus, the product is $2x^2 + 8x + 6x + 24$ and can be rewritten in standard form $2x^2 + 14x + 24$.

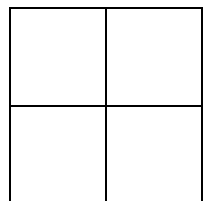
Use an area model to multiply the following binomials:
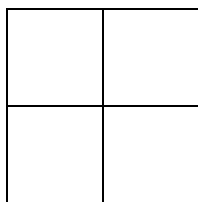
1. $(3x + 4)(x + 2)$ 2. $(2x - 3)(3x + 6)$
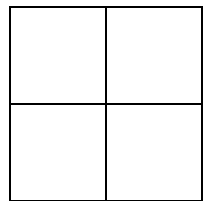
Standard Form: _____   Standard Form: _____

3. $(5x - 3)(4x + 2)$ 4. $(5x - 4)(6x - 1)$

Standard Form: _____   Standard Form: _____

5. $(3x - 2)(3x + 2)$

6. $(5x - 4)^2$

Standard Form: _____   Standard Form: _____

_____

Now, if we have the solution, can we find the factors? Try finding the two binomial factors that would produce these solutions:

9.

x^2	-6x
-8x	48

_____
two factors

10.

$3x^2$	+4x
+6x	+8

_____
two factors

11.

$5x^2$	-7x
+15x	-21

_____
two factors

12.

$6x^2$	+8x
-21x	-28

_____
two factors

Find the two binomial factors that produce each product.

13. $x^2 + 10x + 21$

_____
two factors

14. $3x^2 + 14x + 8$

_____
two factors

Homework: Unit 5 Day 1 to Day 4 Review Worksheet