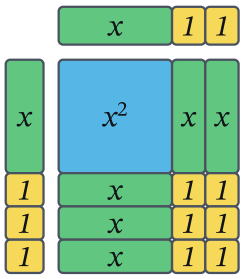
Name _____ Date _____

Multiplying Binomials

Example



×	x	2
x	x^2	$2x$
3	$3x$	6

$(x + 2)(x + 3)$

$= x^2 + 2x + 3x + 6$

$= x^2 + 5x + 6$

Remember

Multiply **each** term of the first bracket by each term of the second: $(a + b)(c + d) = ac + ad + bc + bd$. Then collect like terms. The area model helps us not to miss any product.

1 ON YOUR OWN Complete the area model and write the product.

×	x	4
x		
1		

$(x + 4)(x + 1) =$

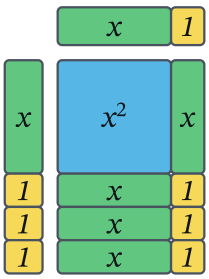
×	x	-3
x		
5		

$(x - 3)(x + 5) =$

×	$2x$	1
x		
-2		

$(2x + 1)(x - 2) =$

2 ON YOUR OWN Which product do the tiles show? Write it and multiply out.



_____ =

_____

Names (pair) _____ Date _____

3 ON YOUR OWN Multiply out.

$(a + 3)(a + 2) =$ ☐

$(x - 4)(x - 1) =$ ☐

$(2y + 3)(y + 4) =$ ☐

$(3x - 1)(2x + 5) =$ ☐

$(a + b)(a - 2b) =$ ☐

$(x + 2)(x^2 - 1) =$ ☐

4 IN PAIRS **Check by substituting.** One student multiplies out $(x + 3)(x - 1)$, the other puts $x = 2$ into the brackets and into the result. Do the numbers agree?

$(x + 3)(x - 1) =$ ☐ for $x = 2$: ☐ $=$ ☐ **yes** / **no**

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Mode **Multiplying**: in the *Display* menu choose 2 variables and the letters x, y, z. Press *New task*, fill the product rectangle and look for the tick.

5 ON YOUR OWN **A rectangle** has sides $2x + 1$ and $x + 3$. Write its area without brackets and work it out for $x = 2$.

$P =$ ☐ for $x = 2$: ☐

★ ON YOUR OWN **Exit card.** $(x + 5)(x - 2) =$ ☐