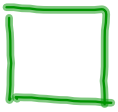
L4: Multiplying with Alga-tiles

Scheduled Review
Multiply or Divide each of the following

$2x^4y\left(-5x^3y^2z^3\right) = -10x^7y^3z^3$ $\qquad \frac{-9x^5y^6}{12xy^2} = -\frac{3}{4}x^4y^4$

Review of alga-tiles
(Shaded is Positive)

$x^2 =$  $\qquad x =$  $\qquad 1=$

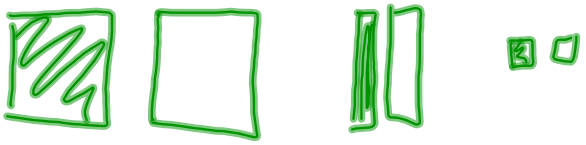
$-x^2 =$  $\qquad -x =$  $\qquad -1=$ 

Using your tiles make

$2x^2 - 3x + 4$

$-x^2 + 3x + 1$

Make zero in three different ways.

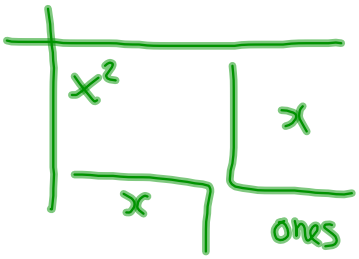


*Zero pairs!

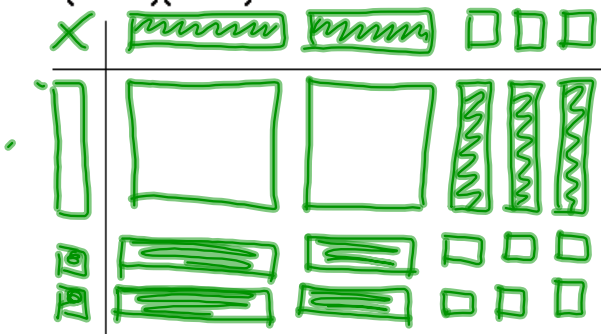
To multiply polynomials one way is to use alga-tiles.

binomial

$(2x+1)(x+3) =$ $2x^2+7x+3$



$(-x+2)(2x-3) =$



$-2x^2+7x-6$

On your own solve

$3(2x-1) =$ $6x-3$

$(2x+2)(x+1) =$ $2x^2+4x+2$

$(-x-1)(x-3) =$ $-x^2+2x+3$

We could do this the same way without using alga-tiles and just drawing a rectangle and then just total up the inside.

$(2x+1)(x+3)=$

	x	3
$2x$	$2x^2$	$6x$
1	x	3

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

$2x^2+7x+3$

$(5x-4)(2x+9)=$

	$2x$	9
$5x$	$10x^2$	$45x$
-4	$-8x$	-36

$10x^2+45x-8x-36$

$10x^2+37x-36$

$(-4x-5)(2x-7)=$

	$2x$	-7
$-4x$	$-8x^2$	$28x$
-5	$-10x$	35

$-8x^2+28x-10x+35$

$-8x^2+18x+35$

$(3x^2-2x+4)(5x+1)=$

$(4x^2+5x-7)(x^2-2x+3)=$

$4x^2$	$4x^4$	$-8x^3$	$12x^2$
$5x$	$5x^3$	$-10x^2$	$15x$
-7	$-7x^2$	$14x$	-21

$x^2 \quad -2x \quad 3$