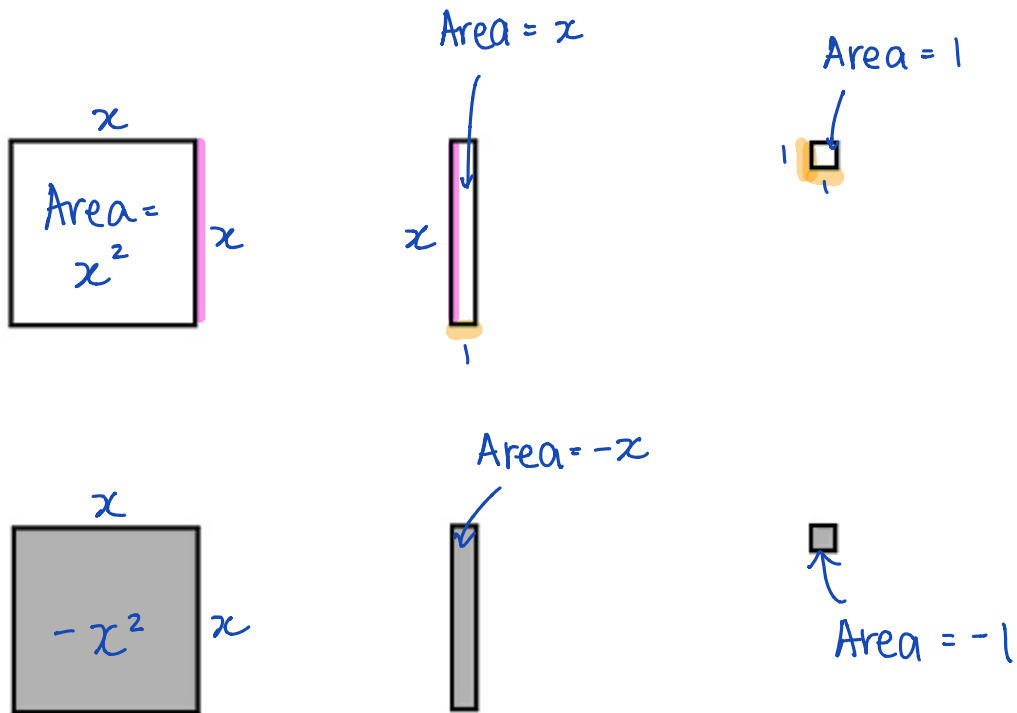Name: _____   Date: _____
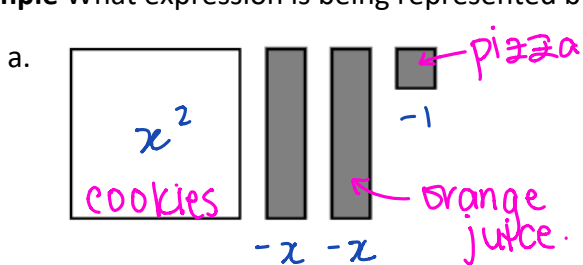
Learning Goal 5.1	I can identify characteristics of polynomials and simplify polynomials by collecting like terms.

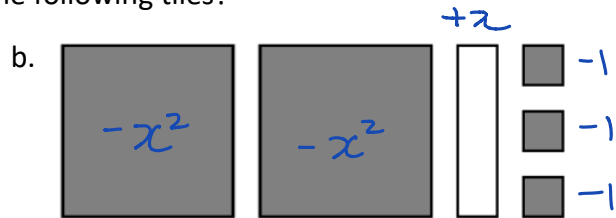Algebra Tiles : tiles that represent an area

Area = x

Area = 1

x

Area = x^2

x

x

1

1

Area = $-x$

x

$-x^2$

x

Area = -1

Example What expression is being represented by the following tiles?

a.

x^2

cookies

pizza

-1

orange juice.

$-x -x$

$x^2 - x - x - 1$

= $x^2 - 2x - 1$

b.

$+x$

$-x^2$ $-x^2$

-1
-1
-1

$-x^2 - x^2 + x - 1 - 1 - 1$

= $-2x^2 + x - 3$
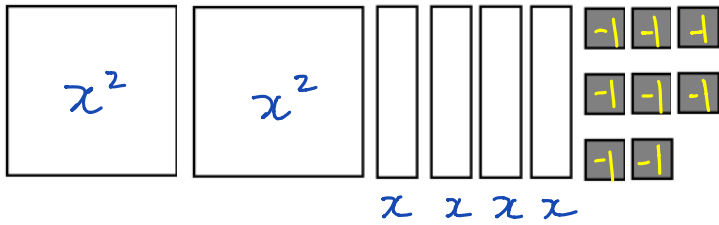
quadratic   linear   constant

Assignment   p. 213 #1 – 9, 12 – 16, 20   Quiz Next Day!
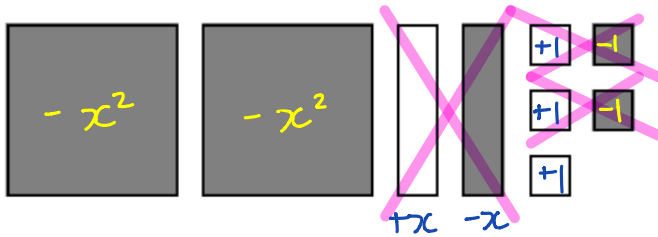
c.

$$x^2 + x^2 + x + x + x + x - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1$$

$$= 2x^2 + 4x - 8$$

Example What expression is being represented by the following tiles? Can it be simplified?
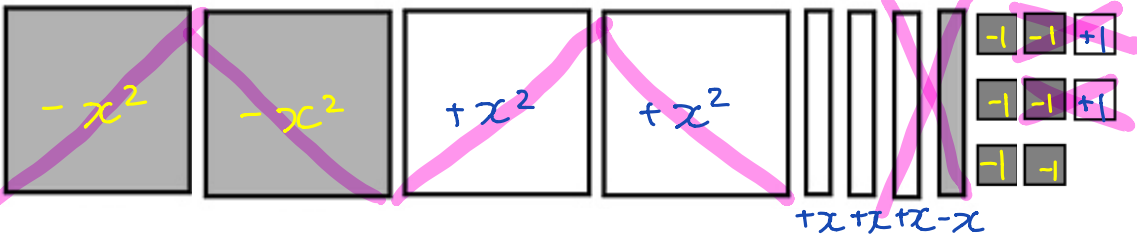
a.

$$-x^2 - x^2 + x - x + 1 + 1 + 1 - 1 - 1$$

$$= -2x^2 + 0x + 1$$

↑ algebra

Tiles: $-2x^2 + 1$

         term

b.

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

	Definitions whole #: 0, 1, 2, 3, ...
Polynomial	an expression consisting of variables and coefficients where exponents on all variables belong to the whole number set.
Monomial	a polynomial with just one term.
Binomial	a polynomial with 2 terms.
Trinomial	a polynomial with 3 terms.
Term	a number multiplying a variable(s) with a whole # exp.
Constant	a term without a variable
Coefficient	the number that multiplies the variable ex. 2x
Degree	the largest exponent in the polynomial on a variable.

ex. $3x - 5x^2 + 10$

Assignment   p. 213 #1 – 9, 12 – 16, 20   Quiz Next Day!