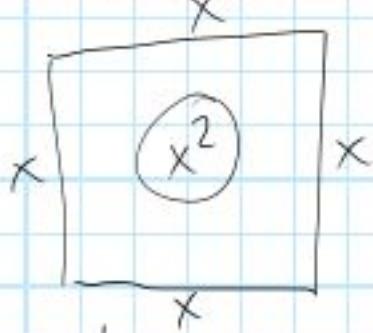


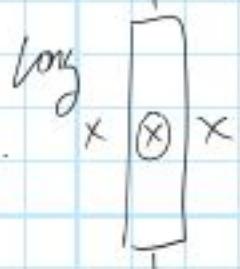
small ① 1

$$\text{Area} = l \cdot w = 1 \cdot 1 \\ = 1$$

By



$$\text{Area} = l \cdot w = x \cdot x \\ = x^2$$



$$\text{Area} = l \cdot w = 1 \cdot x \\ = x$$

⊕ Other Color ⊖ Red
(color in) (Empty)

$$\boxed{\text{⊕}} + \boxed{\text{⊕}} + \boxed{\text{⊕}} = 3$$

1 1 1

$$\boxed{\text{⊖}} + \boxed{\text{⊖}} + \boxed{\text{⊖}} = 3x$$

x x x

$$\boxed{\text{⊖}} + \boxed{\text{⊖}} + \boxed{\text{⊖}} = 3x^2$$

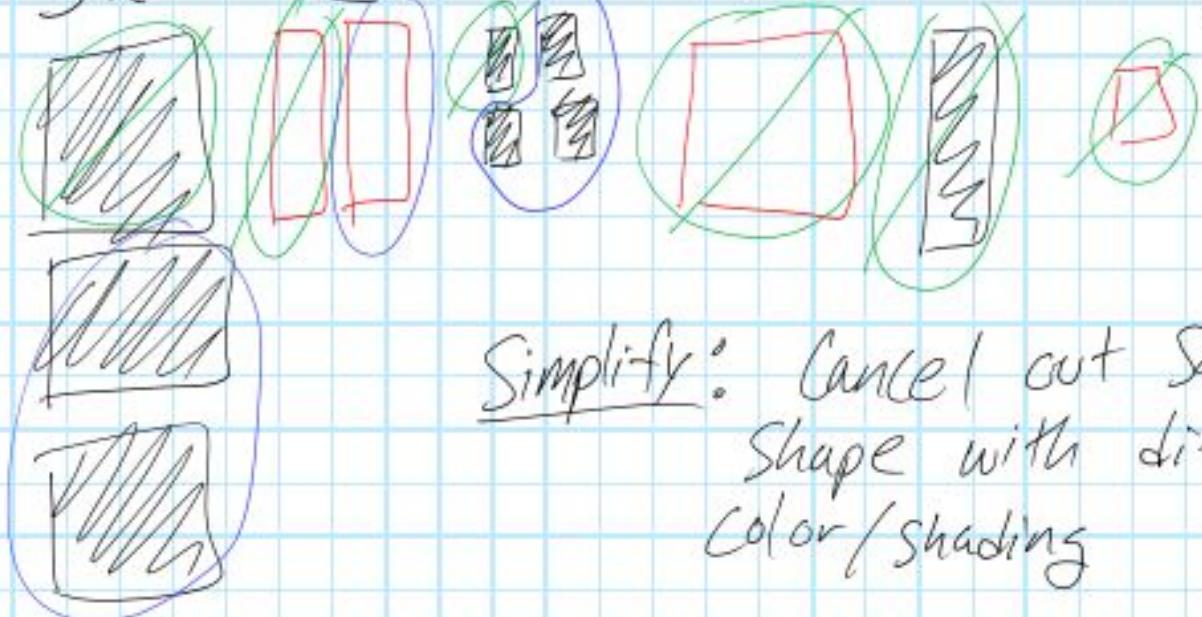
x^2 x^2 x^2

Arrange @ Draw

⊕ Other

△ Red
□

$$3x^2 - 2x + 4 - x^2 + x - 1$$

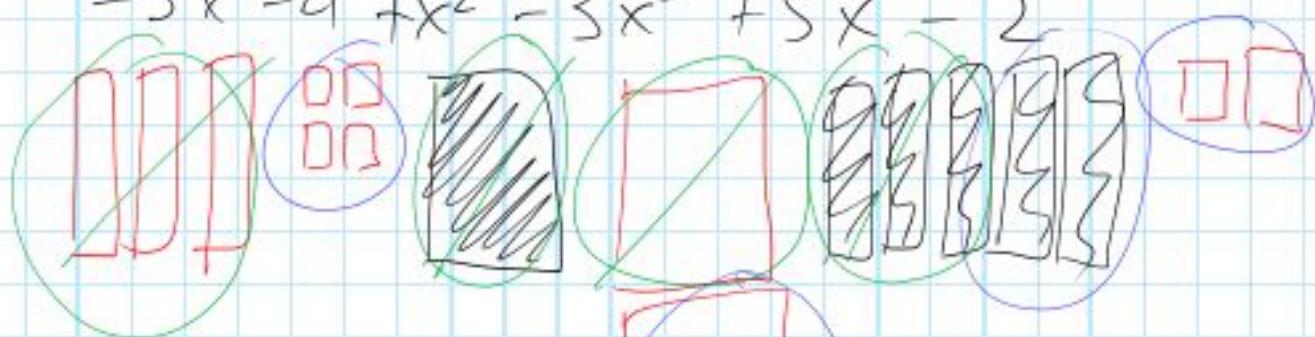


Simplify: Cancel out same shape with different color/shading

$$= 2x^2 - x + 3$$

Draw @ Arrange then Simplify, and write answer

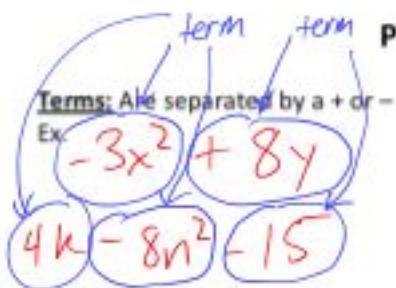
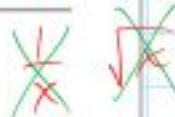
$$-3x - 4 + x^2 - 3x^2 + 5x - 2$$



$$= -6 - 2x^2 + 2x$$



Name: _____

**Polynomial Vocabulary****Polynomial:** expression with one or more terms

Ex. $3x - 4 \leftarrow$ Polynomial $0.8x$
 $8y^2 - 15x + 87y^5 \leftarrow$ $-0.2y$
 $5 \leftarrow$ $+ \frac{1}{2}x$

Variable: An unknown quantity, usually written as a letter $x, y, z, a, b, c, \star, \alpha, \beta, \gamma, \delta, \theta, \pi$ **Coefficient:** the number multiplying a variable $-5k$ $\left(\frac{2}{3}\right)y^2$ **Constant:** A number without a variable $3x - 4$ **Like terms:** terms with the same variables **and** same exponents $3x^2$ and $-2x^2$ $5y$ and $6y^2$ $18x^2y^5$ and $2x^2y^5$

| | $5y + 1$ | $-3x - 2x^2 + 1x^2$ | $-7t + 3k^4 - k^2 + 5t - 2$ |
|---|----------|---------------------|-----------------------------|
| How many terms are there in this polynomial? | 2 | 3 | 5 |
| What variables are in this polynomial? | y | x | t, k |
| What are the coefficients? | 5 | -3, -2, 1 | -7, 3, -1, 5 |
| What is the constant? | 1 | None \oplus 0 | -2 |
| List the like terms in each polynomial | None | $-2x^2$ and x^2 | $-7t$ and $5t$ |
| Simplify the polynomial by combining like terms | $5y + 1$ | $-3x - x^2$ | $-2t + 3k^4 - k^2 - 2$ |

Write down polynomials with 2 terms when simplified using the variable 'y'

Just

$$-3y + 2$$

$$5y^2 - y$$

Write down polynomials with 3 terms when simplified using the variable 'b'. Make sure they have a coefficient of -3 and a constant of -4

$$-3b - 4 + b^3$$

Write down 2 like terms for $3b$
Add them together and simplify

$$4b \text{ and } -8b$$

Write down 2 like terms for $-7x^2$
Add them together and simplify

$$3x^2 \text{ and } -15x^2$$

HW: Section 5.1 #6(all), 7(a-g), 8 (a-h), 9(all)

Remember: We can only combine when the tiles have the same shape (like terms)

