Name:_____ Number:_____

Period:_____ Date:_____

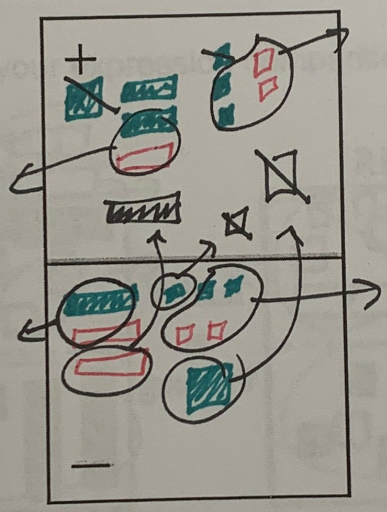
Chapter 2 Review Packet

Directions: Work in partners to complete the problems below. You are each responsible for turning this in. Put a star by your name if you have read the directions. When you are finished, you can start your homework.

1. a) Use algebra tiles to build the following expression:

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

b) Draw what you built below:

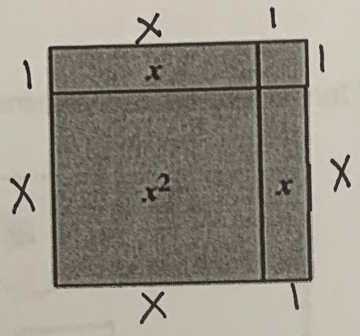


c) Simplify your expression. Write the steps below. You need to have at least 3 steps. (More is fine.)

Expression	Explanation
$x^2 + x + x + -x + 3 - 2 - (x - 2x + 3 - 2 + x^2)$	Given
$x^2+x+1-(x^2-x+1)$	Remove zero pairs
$x^2+x+1-x^2+x-1$	flip
$2x$	Remove zero pairs

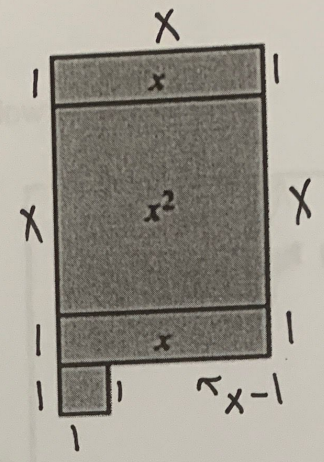
2. Find the perimeter of each. Show your work.

Figure A



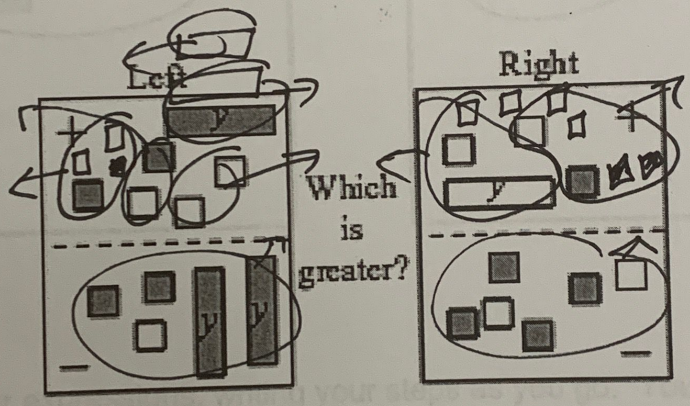
$4x+4$

Figure B



$4x+6$

3. a) Build the expressions on your expression comparison mat.



b) Simplify your expressions, writing your steps as you go. You need at least 3 steps. (More is fine.)

$y+2-3-(2y+2-1)$ vs $-y-2+1-(4-2)$ given

$y-2y-5+3$ vs $-y+3-6$ flip

$-y-2$ vs $-y-3$ Remove zero pairs

0 -1 Remove $-y+-2$ from both sides

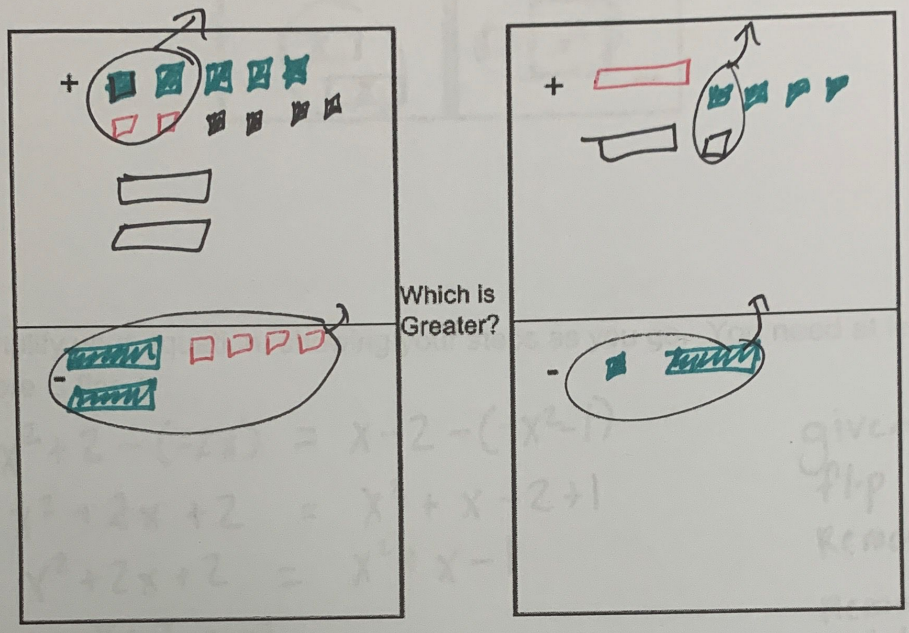
c) Which expression is greater?

The left is greater because $0>-1$.

4. a) Build the following expressions on your expression comparison mat:

5 - (2y - 4) - 2 or -y - (1+y) + 4

b) Draw your expression comparison mat below:



c) Simplify your expressions, writing your steps as you go. You need at least 3 steps. (More is fine.)

$5-(2y-4)-2$ vs $-y-(1+y)+4$ given

$-2y-2+9$ vs $-2y+4-1$ flip

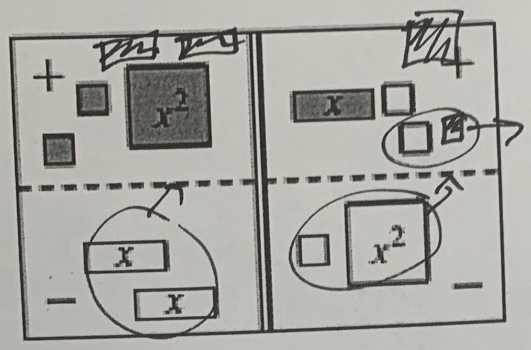
$-2y+7$ vs $-2y+3$ Remove zero pairs

7 vs 3 Remove $-2y$

d) Which expression is greater?

The left is greater because $7 > 3$.

5. a) Build the equation on an equation mat.



b) Simplify your equation, showing your steps as you go. You need at least 3 (More is fine.)

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

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

$x^2+2x+2 = x^2+x-1$ Remove zero pairs

$x+2 = -1$ Remove x^2 & x

$\boxed{x = -4}$ Add -3

c) What does x equal?

$x = -4$