$\square$
5.3 - Adding Polynomials

Focus: Use different Strategies to Add polynomials
Recall: $\square$

a) Rearranging the algebra tiles according to their shapes.

c) Drawing the remaining tiles.

Simplified Polynomial: $3 x^{2}+x+3$

Adding Polynomials
When we write the sum of two polynomials, we write each polynomial in brackets.
To add polynomials, we can use a few different methods.

1) Using Algebra Tiles
2) Combine like terms by adding their coefficients

(3) Add coefficients of LIKE TERMS

$$
-1 x^{2}+4 x-2
$$

Ex. 2: Add without using algebra tiles: $(8 a-4)+\left(-12 a^{2}-3 a-13\right)$

$$
\begin{aligned}
& 8 a-4-12 a^{2}-3 a-13 \\
& -12 a^{2}+8 a-3 a+-4-13 \\
& -12 a^{2}+5 a-17
\end{aligned}
$$

When Adding polynomials, we can add horizontally like above or we can also align the polynomials according to like terms and add vertically.

Ex. 3: Add $\left(3 x^{2}-4 x+5 y-8 x y+4 y^{2}\right)+\left(5 y-8 /+7-4 y x-3 y^{2}\right)$

$$
\begin{aligned}
& 3 x^{2}-4 x+5 y-8 x y+4 y^{2} \\
& \frac{7 x^{2}-8 x-6 y-4 x y-3 y^{2}}{10 x^{2}-12 x-y-12 x y+y^{2}}
\end{aligned}
$$

Ex. 4: Write the Perimeter of the rectangle as a simplified polynomial.


HW Assignment
Section 5.3 pg. 228 \# 3, 5-7, 8-9 (aces), 10a, 12, 14, 15ace, 16, 17

