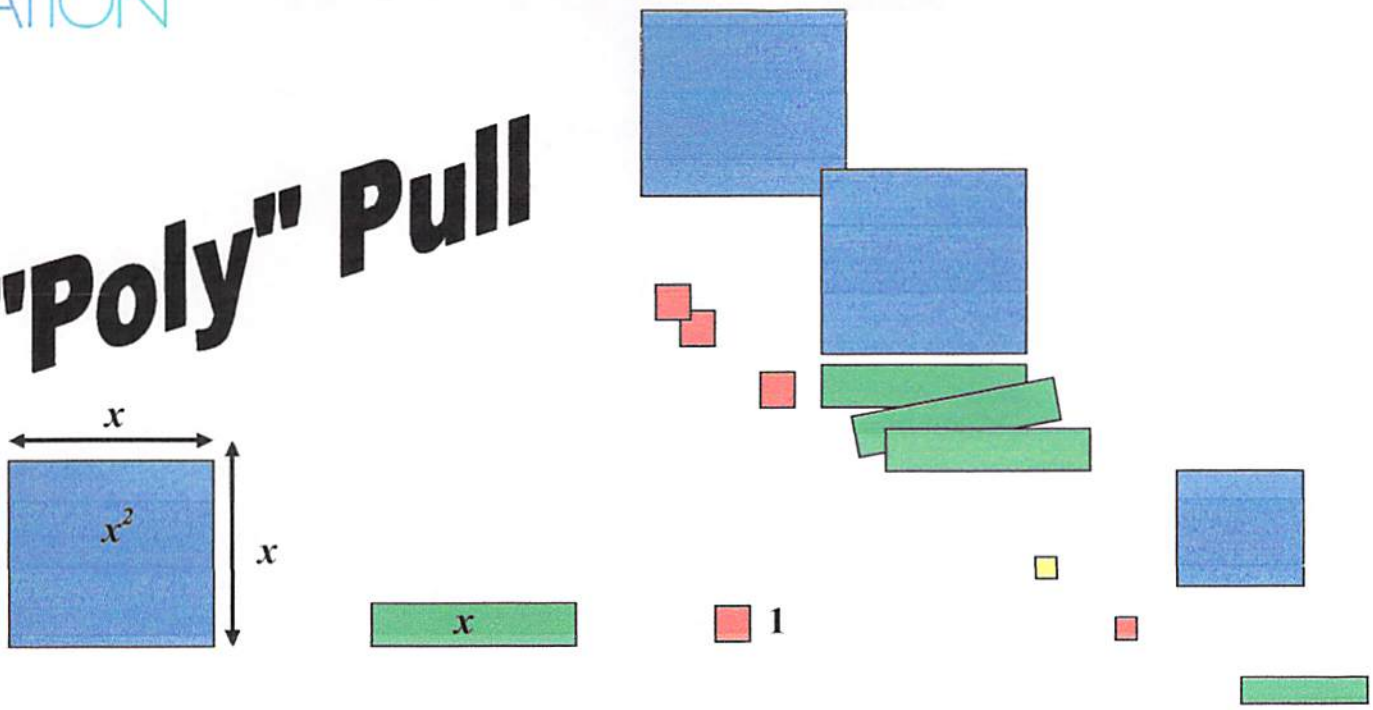
"Poly" Pull



Standard: MCC9-12.A.APR.1a: Add, subtract, and multiply polynomials.

Materials:
20-25 polynomial cards
1 set of algebra tiles per 2 students
1 felt mat per pair of students
Answer Key
Timer, if desired

Procedure:

1. Give each set of partners 1 felt mat and 1 set of algebra tiles.
2. Using the key above, have each pair show you x^2, x, and 1 and explain why each algebra tile would have that name.
3. Have the leader pull a polynomial card out of the bag and set it in the middle for everyone to see.
4. Each pair puts out the algebra tiles that concretely represent the polynomial expression.
5. The leader checks to see if everyone agrees.
6. Each pair takes turns explaining why their model is correct.
7. If answers vary, the co-leader guides the discussion and asks each pair to explain and then confirms the correct response using the answer key.
8. The process is repeated with the remaining cards.

Challenge: Use the algebra tiles to represent the polynomials on the challenge cards.

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$2x^2 + 5x + 2$	$-x^2 + 2x$
$4x^2 + 3x + 5$	$x^2 - 2x - 3$
$-2x^2 - 4x$	$2x^2 + x + 8$
$4x + 4$	$- 2x + 4$
$3x^2 - 3x + 5$	$-4x^2 - 2$

Create the Polynomial

$4x + 3x + 1$

Combine like terms

Create the Polynomial

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

Combine like terms

Create the Polynomial

$5x^2 + 2x - 2x$

Combine like terms

Create the Polynomial

$-5 + 6 - 4x + 2x$

Combine like terms

Create the Polynomial

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

Combine like terms

Create the Polynomial

$2x^2 + 4x^2 + x^2$

Combine like terms

Create the Polynomial

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

Combine like terms

Create the Polynomial

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

Combine like terms

Create the Polynomial

$-5 + 6 + 4x$

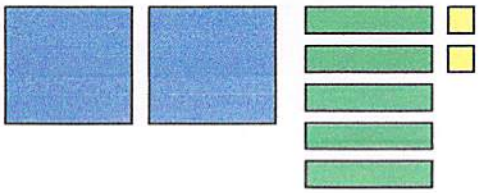
Combine like terms

Create the Polynomial

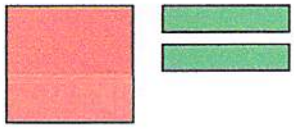
$6x - 2x^2 - x$

Combine like terms

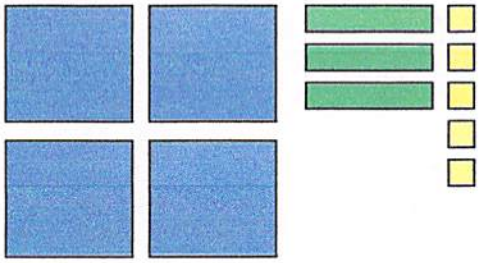
$2x^2 + 5x + 2$



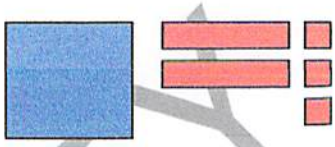
$-x^2 + 2x$



$4x^2 + 3x + 5$

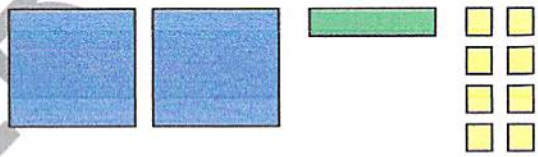


$x^2 - 2x - 3$

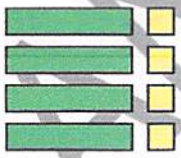


$-2x^2 - 4x$

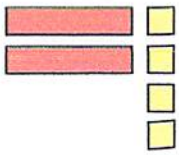
$2x^2 + x + 8$



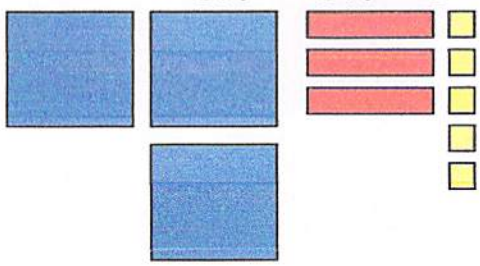
$4x + 4$



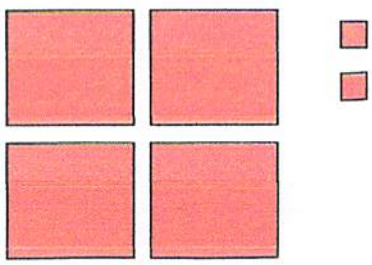
$-2x + 4$



$3x^2 - 3x + 5$



$-4x^2 - 2$



ANSWER KEY