

Essential Question: How do we add and subtract polynomials?

Do Now: What did you learn from the Flip? Complete the table below.

Polynomial	Most Specific Name	Standard Form	Degree	Leading Coefficient	Constant Term
6					
$-2x$					
$9 + 3x$					
$2x - 5 - x^2$					
$4x^3 - 8x$					
$1 - 7x^2 + 6x + 2x^3$					

How do we determine the degree of a monomial with more than one variable?

Sum the exponents of the variables.

a) $5x^2y^3$

b) $-3xy^3$

c) $7ab^3c^5$

Degree: 5

Degree: 4

Degree: _____

STOP HERE

Adding Polynomials



How do we add polynomials? Consider: $(8x^2 + 3) + (2x^2 - 6x + 4) + (-5x^2 - 7x)$

Find the sum of the given polynomials. Represent your final answer in standard form.

1) $(6 - 3t - t^4) + (9t + t^4) + 5t^2$

Subtracting Polynomials



How do we subtract polynomials? Consider: $(3x^3 - x^2 + 8) - (2x^2 + 3x + 1)$

Find the difference of the given polynomials. Represent your final answer in standard form.

2) $(7y^2 + 9y) - (3y^2 + 7)$

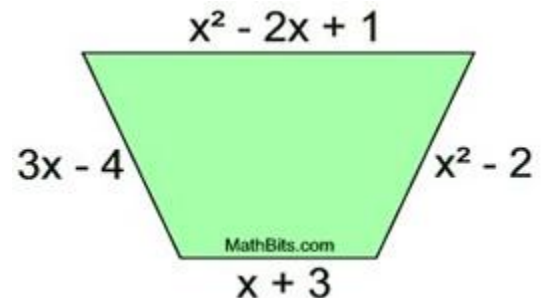
3) Subtract $5x^2 - 2x + 1$ from $x^2 + 5x$



NOW IT'S YOUR TURN

4) $(6x^3 + 7x) - (3x^2 + 5) + (x^2 - 10x - 1)$

5) Write a simplified polynomial expression that represents the perimeter of the quadrilateral.

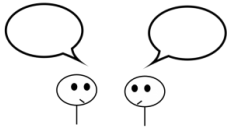


The
TAKEAWAY

We can add and subtract polynomials by _____.

Reminder: Always distribute the - sign when subtracting.

Turn and Talk:



1) Is it possible that a sum of two binomials results in a monomial? Justify your response with an example.

2) The RMS Spotlight club is sponsoring a school dance with complimentary refreshments in order to fundraise for their upcoming show. They have made a list of expenses and revenue. Using the list, write a simplified polynomial expression in standard form that represents their profit if x students attend the dance.

Revenue	Expenses
<i>Admission Fee - \$5.00 per student</i>	<i>DJ - \$500</i>
<i>PFA Donation - \$200</i>	<i>Refreshments per student - \$1.50</i>

Using your expression, calculate the profit of the club if 620 students attend the dance.