

Algebra RH

Essential Question: How do we add and subtract polynomials?

Do Now:

Polynomial	Standard Form	Classification By # of Terms	Degree	Leading Coefficient
6				
-2x				
1 + 3x				
2x - 5 - x ²				
-8x + 4x ³				
2x ³ - 7x ⁴ - 5 + x				

Adding and Subtracting Polynomials:

COMBINE like terms and remember to DISTRIBUTE the — sign when subtracting!

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

1. $(2x^2 + x - 5) + (x + x^2 + 6)$

2. $(5x^3 - x + 2x^2 + 7) + (3x^2 + 7 - 4x) + (4x^2 - 8)$

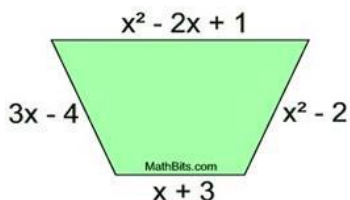
3. $(x^2 - 8) - (7x + 4x^2)$

4. Subtract $5x^2 - 2x + 1$ from $x^2 + 5x$

5. $(-2x^3 + 5x^2 - x + 8) - (-2x^3 + 3x - 4)$

6. $(3x^2 - 5x + 3) - (2x^2 - x - 4) + (4x^3 - 1) - (7x + 9)$

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



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

9. 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.

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