

Vocabulary: polynomial monomial binomial trinomial
standard form leading coefficient degree

What should I be able to do?

- Add and subtract polynomials
 - Multiply monomials
 - Multiply monomials and polynomials
 - Multiply binomials
 - Multiply binomials and trinomials
 - Perform multiple operations with polynomials
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Practice Problem Set: Perform the indicated operation.

Represent all final answers as a simplified polynomial expression written in standard form.

1. $(2x^2 + 3x - 1) + (7x - 2x^2)$

2. $(3a^2)(4a)$

3. $-3x(3x^2 - 9x + 5)$

4. $(y^2 + 12y) - (-3y^2 + 7y - 1)$

5. $(2x + 1)(x - 4)$

6. $(6p - 1)^2$

7. $(2x - 1)(8x^2 + 9x - 11)$

8. Subtract $3x^2 - 2x + 1$ from $10x - 3$

Simplify the expressions. Represent final answers as a simplified polynomial expression written in standard form. Remember to follow PEMDAS!

9. $(11x^2 + 9x - 3) - 3x(7x - 6)$

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