

Essential Question: How do we multiply polynomials?

Do Now:

Find the perimeter and area of a rectangular garden whose dimensions are $x + 5$ and $2x - 1$.

Multiplying Polynomials:

Multiply the second polynomial by each term of the first polynomial.

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

2. $(x + 3)(2x + 5)$

3. $(4y - 1)(3y - 1)$

4. $(q - 9)(2q^2 + 3q + 1)$

5. $(5 + 3y - y^2)(y - 2)$

6. $(6x^3 - 2x^2 + x - 8)(5x - 6 + 3x^2)$

Combining Operations

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

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

9. $(x + 1)(x - 1) - (x + 2)(x - 2)$

10. $5x(x - 4)^2$