

11.0

2 CST items

Students apply basic factoring techniques to second- and simple third-degree polynomials.

These techniques include finding a common factor for all terms in a polynomial, recognizing the difference of two squares, and recognizing perfect squares of binomials.

Key Vocabulary

Polynomial	Term	Coefficient	Greatest Common Factor (GCF)
Factor (v .)	FOIL	Square of a Binomial	Difference of Squares

Instructional Objectives

1	Determine the GCF of the terms of a polynomial and factor the polynomial.	1	State the GCF of the terms: $6x^2 + 21x - 3$
		2	State the GCF of the terms: $-20x^2y - 12xy - 8xy^2$
		3	Factor the polynomial: $-5x^2 + 30x - 10$
		4	Factor the polynomial: $6x^3y - 18x^2y^2 + 10xy^3 - 2xy$
2	Factor quadratic trinomials as the product of linear binomials.	1	Factor: $x^2 + 8x + 12$
		2	Factor: $x^2 + 3x - 40$
		3	Factor: $6x^2 + 19x + 15$
		4	Factor: $3a^2 - 9ab - 30b^2$
3	Recognize and factor perfect squares of binomials.	1	Factor: $x^2 + 12x + 36$
		2	Factor: $x^2 - 8x + 16$
		3	Factor: $25x^2 + 20x + 4$
		4	Find a value of b such that: $x^2 + bx + 49 = (x - 7)^2$
4	Recognize and factor the difference of squares.	1	Simplify: $(3x + 7)(3x - 7)$
		2	Factor: $x^2 - 64$
		3	Factor: $4x^2 - 1$
		4	Find a value of b such that: $x^2 + b = (x - 5)(x + 5)$