



Math Study Strategies

Factoring Strategies

General Strategies

The objective of factoring is to simplify the expression or equation by recognizing the types of polynomials and applying the proper factoring strategy.

Steps to Factoring

- Find the **GCF** and factor out.
- Identify if the polynomial is a **binomial** $x^2-9 = (x+3)(x-3)$
or a trinomial $x^2+9x+8=(x+8)(x+1)$.
- Factor completely using **difference of squares** procedure or factoring the trinomial by the trial and error method.
- To factor the polynomial, rewrite it in **descending order of exponents** and combine like terms.
- Use rules by memorizing special formulas i. e. difference of perfect squares, **0 product principle**, or trinomial that has a leading coefficient 1 or different than 1.
- Review vocabulary definitions and rules for **GCF, FOIL**, etc.
- Factor the equation **completely**.
- Check your answer by multiplying the factors.

Cautions for Factoring

1. Never divide both sides of an equation by an expression containing the variable.

