

BIG IDEAS

For Your Notebook

Big Idea 1

Adding, Subtracting, and Multiplying Polynomials

You can perform operations with polynomials using the steps below.

Operation	Steps
Add	Group like terms and add.
Subtract	First, rewrite subtraction as addition. Second, group like terms and add.
Multiply	First, multiply terms using the distributive property. Second, combine like terms.

Big Idea 2

Factoring Polynomials

When factoring a polynomial, you should use the following checklist so that you can be sure you have factored the polynomial completely.

STEP 1 Factor out the greatest common monomial factor.

STEP 2 Look for special products to factor.

STEP 3 Factor a trinomial into a pair of binomials, if possible.

STEP 4 Factor a polynomial with four terms by grouping, if possible.

Big Idea 3

Writing and Solving Polynomial Equations to Solve Problems

You can write polynomials that model real-world situations in order to solve problems. For example, you can use the vertical motion model.

Height (in feet) of a projectile: $h = -16t^2 + vt + s$ where t is the time (in seconds) the object has been in the air, v is the initial vertical velocity (in feet per second), and s is the initial height (in feet).

