## BIG IDEAS

## For Your Notebook

## Big Idea 1

teks A.4.B

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. <br> Second, group like terms and add. |
| Multiply | First, multiply terms using the distributive property. <br> Second, combine like terms. |

## Big Idea (2)

## Big Idea (3)

teks A.1.C

## 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.

## 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: $h=-16 t^{2}+v t+s$ 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).


