

Now

In Chapter 9, you will apply the big ideas listed below and reviewed in the Chapter Summary on page 615. You will also use the key vocabulary listed below.

Big Ideas

- 1 Adding, subtracting, and multiplying polynomials
- 2 Factoring polynomials
- 3 Writing and solving polynomial equations to solve problems

KEY VOCABULARY

- monomial, p. 554
- degree, p. 554
- polynomial, p. 554
- leading coefficient, p. 554
- binomial, p. 555
- trinomial, p. 555
- roots, p. 575
- vertical motion model, p. 577
- perfect square trinomial, p. 601
- factor by grouping, p. 606
- factor completely, p. 607

Why?

You can use a polynomial function to model vertical motion. For example, you can use a polynomial function to model the height of a jumping animal as a function of time.

Animated Algebra

The animation illustrated below for Exercise 62 on page 598 helps you to answer this question: How does changing the initial vertical velocity of a serval, an African cat, affect its jumping height?

t	h
0	0
0.25	3
0.5	4
0.75	3
1	0
1.5	-12

Animated Algebra at classzone.com

Other animations for Chapter 9: pages 555, 582, 592, and 601