

Now

In Chapter 2, you will apply the big ideas listed below and reviewed in the Chapter Summary on page 140. You will also use the key vocabulary listed below.

Big Ideas

- 1 Representing relations and functions
- 2 Graphing linear equations and inequalities in two variables
- 3 Writing linear equations and inequalities in two variables

KEY VOCABULARY

- domain, range, *p.* 72
- function, *p.* 73
- linear function, *p.* 75
- slope, *p.* 82
- rate of change, *p.* 85
- parent function, *p.* 89
- *y*-intercept, *p.* 89
- slope-intercept form, *p.* 90
- *x*-intercept, *p.* 91
- point-slope form, *p.* 98
- direct variation, *p.* 107
- correlation coefficient, *p.* 114
- best-fitting line, *p.* 114
- absolute value function, *p.* 123
- transformation, *p.* 123
- linear inequality in two variables, *p.* 132

Why?

You can use rates of change to find linear models. For example, you can use an average rate of change to model distance traveled as a function of time.

Animated Algebra

The animation illustrated below for Exercise 44 on page 111 helps you answer this question: If a whale migrates at a given rate, how far will it travel in different periods of time?

The screenshot shows an interactive interface with two main panels. The left panel features a 3D rendering of a whale swimming underwater, with a 'Start' button at the bottom. Below the panel is the text: 'Gray whales migrate from Mexico's Baja Peninsula to waters near Alaska.' The right panel displays a map of North America with a green line indicating a migration path from the Baja Peninsula to Alaska. It includes a 'Days' slider set to 00, a 'Distance Traveled' slider set to 0, a numeric keypad, and a 'Check Answer' button. Below the right panel is the text: 'Change the time elapsed to find how far the whales have traveled.'

Animated Algebra at classzone.com

Other animations for Chapter 2: pages 73, 86, 90, 95, 98, 102, 107, 115, 133, and 140