

Now

In Chapter 7, you will apply the big ideas listed below and reviewed in the Chapter Summary on page 474. You will also use the key vocabulary listed below.

Big Ideas

- 1 Solving linear systems by graphing
- 2 Solving linear systems using algebra
- 3 Solving systems of linear inequalities

KEY VOCABULARY

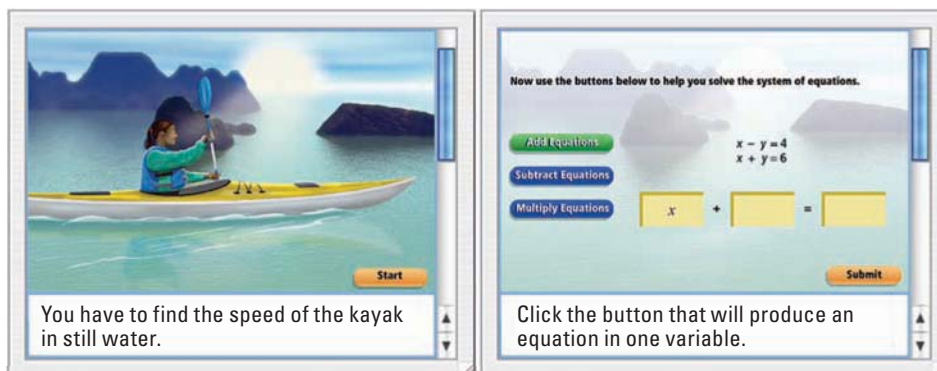
- system of linear equations, p. 427
- solution of a system of linear equations, p. 427
- consistent independent system, p. 427
- inconsistent system, p. 459
- consistent dependent system, p. 459
- system of linear inequalities, p. 466
- solution of a system of linear inequalities, p. 466
- graph of a system of linear inequalities, p. 466

Why?

You can use a system of linear equations to solve problems about traveling with and against a current. For example, you can write and solve a system of linear equations to find the average speed of a kayak in still water.

Animated Algebra

The animation illustrated below for Example 4 on page 446 helps you answer this question: What is the average speed of the kayak in still water?



You have to find the speed of the kayak in still water.

Now use the buttons below to help you solve the system of equations.

Add Equations Subtract Equations Multiply Equations

$$\begin{aligned}x - y &= 4 \\x + y &= 6\end{aligned}$$

$x + =$

Click the button that will produce an equation in one variable.

Animated Algebra at classzone.com

Other animations for Chapter 7: pages 428, 435, 441, 446, 452, 459, and 466