Quantities and Modeling

MATH IN CAREERS

Personal Trainer A personal trainer works with clients to help them achieve their personal fitness goals. A personal trainer needs math to calculate a client's heart rate, body fat percentage, lean muscle mass, and calorie requirements. Personal trainers are often self-employed, so they need to understand the mathematics of managing a business.

If you are interested in a career as a personal trainer, you should study these mathematical subjects:
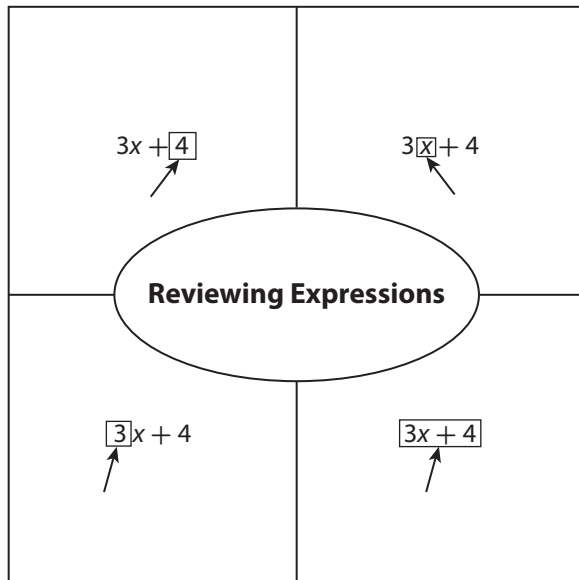
- Algebra
- Business Math

Research other careers that require knowledge of the mathematics of business management. Check out the career activity at the end of the unit to find out how **personal trainers** use math.

Reading Start-Up

Visualize Vocabulary

Use the ✔ words to complete the graphic. Put one term in each section of the square.

$3x + \boxed{4}$ $3\boxed{x} + 4$

Reviewing Expressions

$\boxed{3}x + 4$ $\boxed{3x + 4}$

Understand Vocabulary

To become familiar with some of the vocabulary terms in this unit, consider the following. You may refer to the module, the glossary, or a dictionary.

1. The level of detail of a measurement, determined by the unit of measure,

   is _____ .

2. A statement that two ratios are equal is called a _____ .

3. A _____ is a comparison of two quantities by division.

Active Reading

Two-Panel Flip Book Before beginning the lessons, create a two-panel flip chart to help you compare concepts in this unit. Label the flaps "Creating and Solving Equations" and "Creating and Solving Inequalities." As you study each lesson, write important ideas under the appropriate flap. Include any examples that will help you remember the concepts later when you look back at your notes.