

Name \_\_\_\_\_

**Chapter**  
**1**

## Equations and Inequalities

Dear Family,

The Internet has made more information available to people than ever before. Because much of this information comes from other countries, you are likely to see more metric units of measure than ever before. The dimensions for many products are often given using centimeters (cm) or meters (m). You may find a recipe online that uses milliliters (ml) and grams (g) instead of cups and ounces. How will you convert these measurements to more familiar units?

You may know some ways to approximate some familiar customary units. An inch is about the width of your thumb. A cup of flour fits in two cupped hands. "Room temperature" is about 72 degrees Fahrenheit ( $^{\circ}\text{F}$ ). To develop a way to approximate metric measurements, you will need to convert an unfamiliar unit to a familiar one.

Work with your student to find some analogies for some common metric units. For example, one centimeter (cm) is about four tenths of an inch. A common approximation for a centimeter is the width of the nail on your index finger.

Figure out these analogies with your student:

- Find out what "room temperature" is on the Celsius scale. Normal body temperature is  $98.6^{\circ}\text{F}$ —what is normal body temperature on the Celsius scale?
- A mile is about 12 city blocks. Find out how many city blocks are in a kilometer (km).
- A yard is roughly the distance from your nose to your outstretched fingertips. About how long is a meter?
- About how many grams of flour fit in two cupped hands?

There may be other units you have encountered. By finding common analogies, these new units of measure may become more familiar.

A pinch of understanding is worth a pound of information!

## Equations and Inequalities (continued)

Lesson	Learning Target	Success Criteria
1.1 Solving Simple Equations	Write and solve one-step equations.	<ul style="list-style-type: none"> <li>I can apply properties of equality to produce equivalent equations.</li> <li>I can solve equations using addition, subtraction, multiplication, or division.</li> <li>I can use equations to model and solve real-life problems.</li> </ul>
1.2 Solving Multi-Step Equations	Write and solve multi-step equations.	<ul style="list-style-type: none"> <li>I can apply properties to produce equivalent equations.</li> <li>I can solve multi-step equations.</li> <li>I can use multi-step equations to model and solve real-life problems.</li> </ul>
1.3 Solving Equations with Variables on Both Sides	Write and solve equations with variables on both sides.	<ul style="list-style-type: none"> <li>I can explain how to solve an equation with variables on both sides.</li> <li>I can determine whether an equation has one solution, no solution, or infinitely many solutions.</li> <li>I can use equations with variables on both sides to model and solve real-life problems.</li> </ul>
1.4 Rewriting Equations and Formulas	Solve literal equations for given variables and convert temperatures.	<ul style="list-style-type: none"> <li>I can use properties of equality to rewrite literal equations.</li> <li>I can use a formula to convert temperatures.</li> </ul>
1.5 Solving Simple Inequalities	Write and solve one-step inequalities.	<ul style="list-style-type: none"> <li>I can apply properties of inequality to produce equivalent inequalities.</li> <li>I can solve inequalities using addition, subtraction, multiplication, or division.</li> <li>I can use inequalities to model and solve real-life problems.</li> </ul>
1.6 Solving Multi-Step Inequalities	Write and solve multi-step inequalities.	<ul style="list-style-type: none"> <li>I can apply properties to produce equivalent inequalities.</li> <li>I can solve multi-step inequalities.</li> <li>I can use multi-step inequalities to model and solve real-life problems.</li> </ul>
1.7 Compound Inequalities	Write and solve compound inequalities.	<ul style="list-style-type: none"> <li>I can write word sentences as compound inequalities.</li> <li>I can solve compound inequalities.</li> <li>I can graph solutions of compound inequalities.</li> </ul>