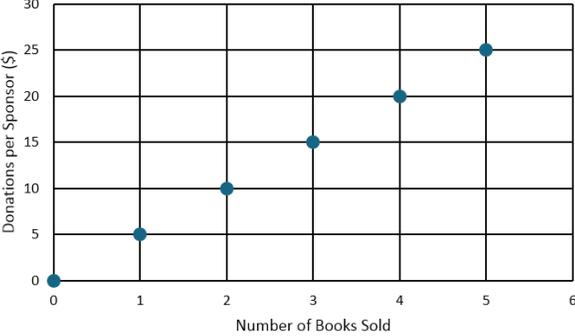# EUREKA MATH™ TIPS FOR PARENTS

KEY CONCEPT OVERVIEW

Welcome to Grade 7! The first topic of Module 1 focuses on ratios and **proportional relationships.** Students identify equivalent ratios, rates, and **unit rates.** They formally define a proportional relationship and analyze relationships presented in ratio **tables**, **graphs** in the coordinate plane, and word problems.

You can expect to see homework that asks your child to do the following:

- Write equivalent ratios and determine whether given ratios are equivalent.

- Compare rates by calculating the unit rate.

- Construct tables and graphs.

- Analyze tables and graphs to determine whether or not they represent proportional relationships.

SAMPLE PROBLEM *(From Lesson 6)*

Problem:

The school library receives money for every book sold at the school's book fair. Create a table, and then graph and explain if the quantities are proportional to each other.

Table:

Number of Books Sold	Donations per Sponsor ($)
1	5
2	10
3	15
4	20
5	25

Graph:

Proportional or Not? Explanation:

The quantities are proportional to each other because the points appear on a line that goes through the origin. Each book sold brings in $5.00, no matter how many books are sold.

Additional sample problems with detailed answer steps are found in the *Eureka Math Homework Helpers* books. Learn more at GreatMinds.org.

HOW YOU CAN HELP AT HOME

You can help at home in many ways. Here are just a few tips to help you get started:

- When shopping for groceries or browsing a supermarket ad, have your child calculate the unit prices—for example, the price per gram or per pound—of various items. (If you are in the store, determine whether your child's answer matches the unit price displayed on the shelf.) Ask which product is the best value based on unit price.

- When following a recipe, discuss what would happen if you made more or less of it. Ask your child to calculate how the other ingredient measurements would change if, for example, you increased the amount of sugar from two cups to four cups, or reduced the amount of butter from six tablespoons to two tablespoons.

- To help your child prepare for Topic B, practice dividing whole numbers and calculating unit rates.

TERMS

Proportional relationships: Relationship in which two quantities—for example, the weight of an item and its price—increase or decrease at the same rate. If one pound of tomatoes sells for four dollars (1:4) and two pounds sell for eight dollars (2:8), the weight and price are proportional; each measure in the second quantity (4 and 8), when divided by its corresponding measure in the first quantity (1 and 2), produces the same number (4), called a constant of proportionality.
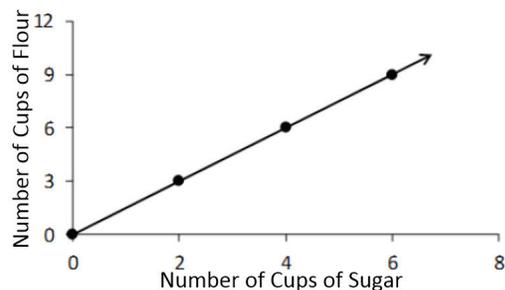
Unit rate: The numerical part of a rate measurement (e.g., in the rate 45 mph, the unit rate is 45).

MODELS

Double Number Lines
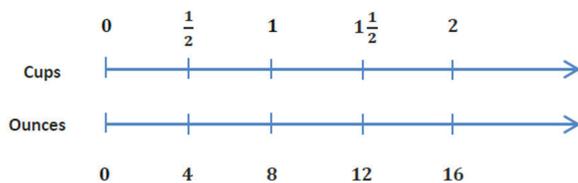
Proportional Relationship on a Graph

Proportional Relationship in a Table

x, Weight (ounces)	12.5	10	5	8
y, Cost ($)	5	4	2	3.20

(• 0.40 between each weight and cost)