EUREKA MATH™ TIPS FOR PARENTS

KEY CONCEPT OVERVIEW

In Topic D, students begin to explore a concept we know and use often in daily life—**percents**. Students are introduced to percents, learning how to find the percent of a quantity as the rate per 100, express a fraction as a percent, and connect percents to ratios. They also find percents of quantities in real-world contexts.

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

- Write a percent as a fraction, decimal, or ratio.

- Use a model to answer problems about percents.

- Find the percent of a quantity.

SAMPLE PROBLEMS *(From Lessons 24 and 25)*

B	B	G	G	G	G	G	P	P	P
B	B	G	G	G	G	G	P	P	P
B	B	G	G	G	G	G	P	P	P
B	B	G	G	G	G	G	P	P	P
B	B	G	G	G	G	G	P	P	P
B	B	B	G	G	G	G	P	P	P
B	B	B	G	G	G	G	P	P	P
B	B	B	G	G	G	G	P	P	P
B	B	B	G	G	G	G	P	P	P
B	B	B	G	G	G	G	P	P	P

Robb's Fruit Farm consists of 100 acres on which three different types of apples grow. On 25 acres, the farm grows Empire apples. McIntosh apples grow on 30% of the farm. Fuji apples are grown on the remainder of the farm. Shade in the grid to the left to represent the portion of the farm each apple type occupies. Use a different color for each type of apple. Create a key to identify which color represents each type of apple.

	Color Key	Part-to-Whole Ratio
Empire	*Black (B)*	25:100
McIntosh	*Purple (P)*	30:100
Fuji	*Green (G)*	45:100

SAMPLE PROBLEMS *(continued)*

A company distributed a survey that asked participants whether or not they were happy with their jobs. Three hundred participants were unhappy with their jobs, while 700 participants were happy. Give a part-to-whole fraction for comparing happy participants to the whole. Then write a part-to-whole fraction comparing unhappy participants to the whole. What percent of the group were happy with their jobs? What percent were unhappy?

Happy	$\dfrac{700}{1,000}$	70%	Unhappy	$\dfrac{300}{1,000}$	30%
	Fraction	Percent		Fraction	Percent

Create a model to justify your answer.
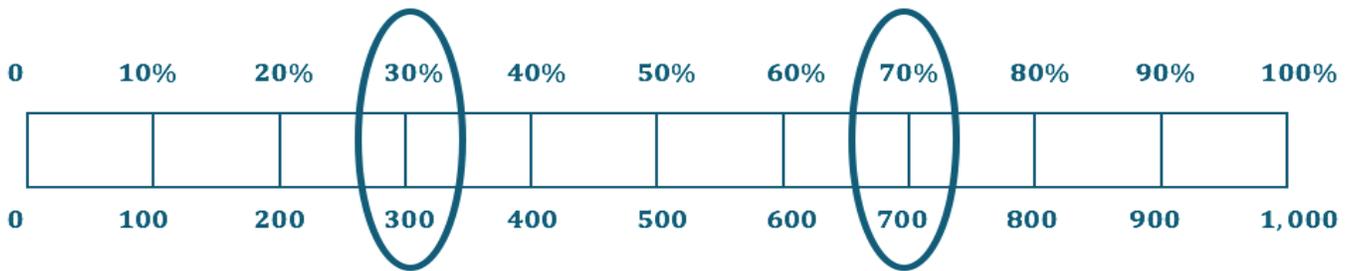
Additional sample problems with detailed answer steps are found in the *Eureka Math Homework Helpers* books. Learn more at GreatMinds.org.

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:

- Ask your child to share two ways each that she can write 5%, 40%, 72%, and 89% (or any other percentages). She may choose to write the percentages as fractions, decimals, or ratios. Encourage her to provide at least one example of each way. If necessary, remind her of the ways the class has worked with percentages throughout the topic (models, fractions, decimals, ratios).

- You and your child can each use a dry erase board to write a different fraction, decimal, or percent. Then, share with one another and determine which value is closer to 0, $\dfrac{1}{2}$, or 1.

- Find ways percentages are used in your daily life. For example, while dining at a restaurant, challenge your child to calculate 10%, 15%, or 20% of the bill so you can determine the tip for the waiter/waitress. If the bill lists suggested tips, discuss how these values were calculated.

TERMS

Percent: One part in every hundred. One out of 100 is written as $\dfrac{1}{100}$ and 1%. Percentages can be used as rates. For example, 30% of a quantity means $\dfrac{30}{100}$ times the quantity.