# EUREKA MATH™ TIPS FOR PARENTS

## KEY CONCEPT OVERVIEW

During the next week, our math class will learn to sort pictures and information into categories and to record that **data** in a **table**. We will also learn to create and use **picture graphs** and **bar graphs** to organize and represent a data set with up to four categories per graph. We will discover that organizing information this way makes it easier to compare and use data to answer questions and solve problems.

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

- Sort pictures into categories to complete a table with **tally marks** or numbers.

- Use data from a table to create a picture graph that includes a title, **symbols**, categories, and a **legend**, and use the data to answer questions.

- Use data from a table to create a bar graph that includes a title, categories, and a **scale**, and use the data to answer questions.

- Write comparison questions based on data from a table or graph. For example, "How many fewer animals are reptiles than mammals?"

## SAMPLE PROBLEM  *(From Lesson 2)*

Use the grid paper below to create a picture graph with data from the table. Then, answer the questions.

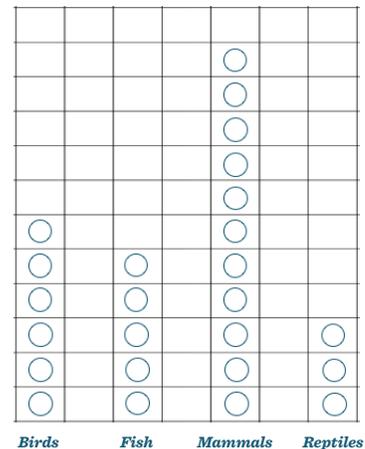a. How many more animals are mammals and fish than birds and reptiles? **7**

   **11 + 5 = 16   6 + 3 = 9   16 − 9 = 7**

b. How many fewer animals are reptiles than mammals? **8**

   **11 − 3 = 8**

| Central Park Zoo Animal Classification | | | |
|---|---|---|---|
| Birds | Fish | Mammals | Reptiles |
| 6 | 5 | 11 | 3 |

Title: *Central Park Zoo Animal Classification*

Legend: *Each  stands for 1 animal.*

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

▪ Encourage your child to sort household objects into categories. For example, he can sort groceries by food groups or clothing by color.

▪ Invite your child to create a picture graph for different types of coins. Give her a small handful of pennies, dimes, nickels, and quarters, and then ask her to sort and organize the coins by type. Encourage your child to draw a picture graph on paper to represent how many of each type of coin are in the groups.

▪ Invite your child to use a different color for each bar when he creates a bar graph. This helps your child to distinguish the bars from each other.

## TERMS

**Data:** A set of facts or pieces of information.

**Legend:** The notation on a graph explaining what any symbols represent. (See Sample Problem.)

**Scale:** A number line indicating what the various quantities in a bar graph represent. (See Bar Graph below.)

**Symbol:** A picture that represents something else (e.g., each ○ stands for 1 coin).

## MODELS

**Bar Graph:** A representation of data using bars.

**Animal Classification**
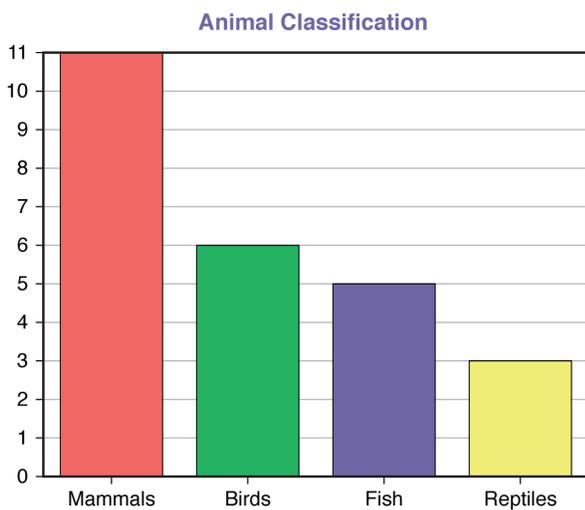


**Picture Graph:** A representation of data using symbols (pictures).

**Trees in Springfield Park**



= 1 tree
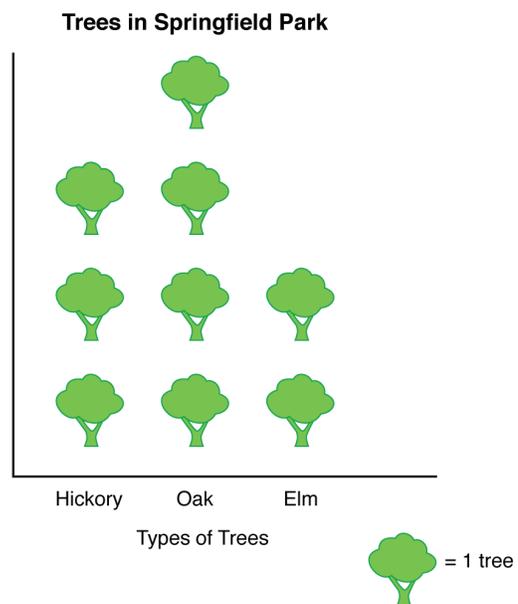
**Table:** A representation of data using rows and columns.

| Toy | Number of Students |
|---|---|
| Stuffed Animals | 11 |
| Toy Cars | 5 |
| Blocks | 13 |

**Tally Marks:** A quick way to record numbers in groups of 5; used in a table or graph to keep track of results.

| Ice Cream Flavor | Tally Marks | Votes |
|---|---|---|
| Chocolate | ‖‖ | 4 |
| Strawberry | ‖‖ | 3 |
| Cookie Dough | 卌 卌 | 10 |