

# Lesson 2

# **Objective**

Students will compare two or more sets of data using bar or line graphs.

Students will interpret information given in a histogram.

Students will recognize the symbols "<" less than and ">" greater than and fill in missing numbers in sequences counting by numbers from 1 to 12.

Students will arrange 4 four-digit numbers in order from least to greatest and greatest to least.

## **Preparation**

No special preparation is required.

### **Lesson Plan**

Read through the explanation and do #1 – #4 together. Explain that when multiple sets of data appear on the same graph, a legend is shown below the graph indicating the information each line or bar is representing.

The Employees bar graph shows three employees whose work days were observed over 5 months. Ask, "How many observations are shown?" (15; 5 for each employee) Help students find the number of observations for the other two graphs.

The graph on the bottom right side of the lesson is a histogram. Histograms are used to group data. To build a histogram, find the lowest value and the highest value. Divide the values between them into equal groups. Each of the values is then placed into one of the segments.

**(i)** The following concept is found on Guided Practice 2 (on the back of Lesson 2).

Write on the board:

2,801

2,534

Ask a student to put notations between the numbers: two dots (one on top of the other) next to the larger number and one dot next to the smaller number. Next, connect the one dot to each of the two dots to make a sideways "V". The bottom point of the "V" points to the smaller (in value) of the numbers. The number statement is "2,801 is greater than 2,534."

Write on the board a series of numbers that increases or decreases by 12. Ask the class in what direction the sequence is counting (+ or –), by what number the sequence is counting and how they know. (Find the difference between each number.) Then ask them to determine what the missing number in the sequence will be.

Have a student give you 3 four-digit numbers less than 10,000. Write them on the board in random order. Ask a student to come forward and rewrite the numbers in order from least to greatest and have the class explain how to tell if the order is correct. (The values in the thousands place are compared, then the hundreds and so on, down to the ones place.)

Have students put more numbers in order, this time from greatest to least.

#### Stretch 2

Kim, Brian and Lee have 42 cats. Lee has twice as many as Kim. Brian has half as many as Kim. How many cats do they each have?

Answer: Kim has 12 cats, Lee has 24 cats and Brian has 6 cats