

Learning Targets

Data Sets and Distributions

Lesson 1: Got Data?

- I can collect the correct data to answer a question and use the correct units.
- I can explain the difference between categorical and numerical data.

Lesson 2: Statistical Questions

- I can tell when data has variability.

Lesson 3: Representing Data Graphically

- I can describe the information presented in tables, dot plots, and bar graphs.
- I can use tables, dot plots, and bar graphs to represent distributions of data.

Lesson 4: Dot Plots

- I can describe the center and spread of data from a dot plot.

Lesson 5: Using Dot Plots to Answer Statistical Questions

- I can use a dot plot to represent the distribution of a data set and answer questions about the real-world situation.
- I can use center and spread to describe data sets, including what is typical in a data set.

Lesson 6: Histograms

- I can recognize when a histogram is an appropriate graphical display of a data set.
- I can use a histogram to get information about the distribution of data and explain what it means in a real-world situation.

Lesson 7: Using Histograms to Answer Statistical Questions

- I can draw a histogram from a table of data.
- I can use a histogram to describe the distribution of data and determine a typical value for the data.

Lesson 8: Describing Distributions on Histograms

- I can describe the shape and features of a histogram and explain what they mean in the context of the data.
- I can distinguish histograms and bar graphs.

Lesson 9: Interpreting the Mean as Fair Share

- I can explain how the mean for a data set represents a “fair share.”
- I can find the mean for a numerical data set.

Lesson 10: Finding and Interpreting the Mean as the Balance Point

- I can describe what the mean tells us in the context of the data.
- I can explain how the mean represents a balance point for the data on a dot plot.

Lesson 11: Deviation from the Mean

- I can find the MAD for a set of data.
- I know what the mean absolute deviation (MAD) measures and what information it provides.

Lesson 12: Using Mean and MAD to Make Comparisons

- I can say what the MAD tells us in a given context.
- I can use means and MADs to compare groups.

Lesson 13: The Median of a Data Set

- I can find the median for a set of data.
- I can say what the median represents and what it tells us in a given context.

Lesson 14: Comparing Mean and Median

- I can determine when the mean or the median is more appropriate to describe the center of data.
- I can explain how the distribution of data affects the mean and the median.

Lesson 15: Quartiles and Interquartile Range

- I can use IQR to describe the spread of data.
- I know what quartiles and interquartile range (IQR) measure and what they tell us about the data.
- When given a list of data values or a dot plot, I can find the quartiles and interquartile range (IQR) for data.

Lesson 16: Box Plots

- I can use the five-number summary to draw a box plot.
- I know what information a box plot shows and how it is constructed.

Lesson 17: Using Box Plots

- I can use a box plot to answer questions about a data set.
- I can use medians and IQRs to compare groups.

Lesson 18: Using Data to Solve Problems

- I can decide whether mean and MAD or median and IQR would be more appropriate for describing the center and spread of a data set.
- I can draw an appropriate graphical representation for a set of data.
- I can explain what the mean and MAD or the median and IQR tell us in the context of a situation and use them to answer questions.