

# Resource Understanding Visual Displays of Information

## Asking questions about displays

Data are presented in a variety of forms to interest you, and invite you, to think about the importance of these data and how they might affect your life.

Some common displays are:

- pie charts
- scatterplots
- histograms and bar graphs
- line graphs
- tables
- pictographs

### What questions should you ask yourself when you study a visual display of information?

- What is the title of the chart or graph?
- What question is the data supposed to answer? (For example: How many men versus women exercise daily?)
- How are the columns and rows labeled? How are the vertical and horizontal axes labeled?
- Select one number or data point and ask, “What does this mean?”

You can view a series of videos about a variety of graph types at:

- [https://www.khanacademy.org/math/pre-algebra/applying-math-reasoning-topic/reading\\_data/v/reading-pie-graphs--circle-graphs](https://www.khanacademy.org/math/pre-algebra/applying-math-reasoning-topic/reading_data/v/reading-pie-graphs--circle-graphs)
- <https://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-data-statistics/cc-6th-line-picto-graphs/v/u08-l1-t2-we2-reading-line-graphs>
- [https://www.khanacademy.org/math/pre-algebra/applying-math-reasoning-topic/reading\\_data/v/histograms](https://www.khanacademy.org/math/pre-algebra/applying-math-reasoning-topic/reading_data/v/histograms)

The table on the next page will help you understand basic types of visual displays of information and tell you which questions they usually answer.

| This looks like a ...         | This visual display is usually used to ...  | For example, it can be used to show ...  |
|-------------------------------|---|--|
| <b>Pie chart</b>              | Show the relationships between different parts compared to a whole.                               | How time is used in a 24-hour cycle.<br>How money is distributed.<br>How something is divided up.  |
| <b>Line graph</b>             | Show trends over time.<br>Compare trends of two different items or measurements.                  | What seems to be increasing.<br>What is decreasing.<br>How the cost of gas has increased in the last 10 years.<br>Which of these foods (milk, steak, cookies, eggs) has risen most rapidly in price over the last decade compared to the others. |
| <b>Histogram or bar graph</b> | Compare data in different categories.<br>Show changes over time.                                  | How a population is broken up into different age categories.<br>How college tuition rates are changing over time.  |
| <b>Table</b>                  | Organize data to make specific values easy to read.<br>Break data up into overlapping categories. | The inflation rates over a period of years.<br>How a population is broken into males and females of different age categories.  |