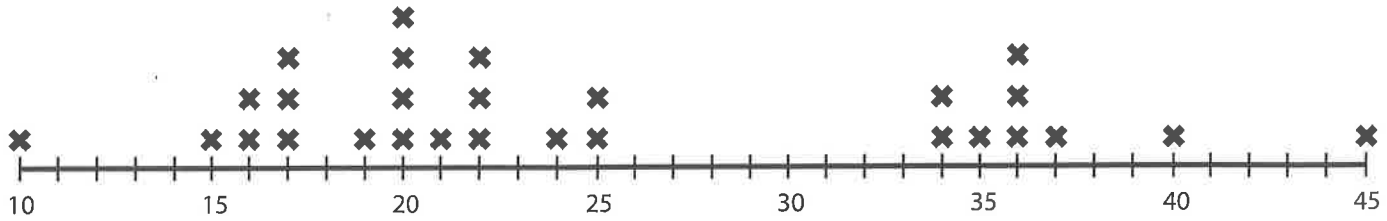


Read a Line Plot

A **line plot** is a graph that shows frequency of data along a number line. An **outlier** is a number or numbers that occur the least on a line plot.



Ages of Chess Tournament Players



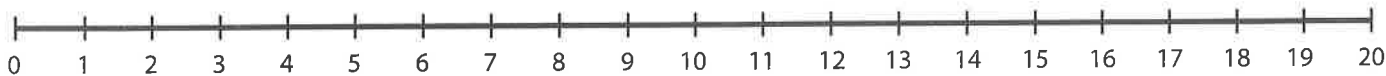
- 1 What is the scale of this graph? _____
- 2 Which ages occur most frequently? _____
- 3 What are the outliers on this graph? Why might these outliers occur? _____

- 4 What clusters do you see? What would be the reason for this? _____

- 5 What gaps occur on this line plot? _____
- 6 What is the average age of the players? _____
- 7 What were the ages of the oldest and youngest players at the tournament? _____

Plot a Spot

Record the data on the line plot. Then use the line plot to answer the questions.



Number of Pets Owned by Mrs. Wilkes's Students

- 1 In Mrs. Wilkes's class, students were asked to give the number of pets owned by their family. Place their responses on the number line.

0, 3, 13, 2, 2, 0, 4, 5, 2, 2, 1, 2, 1, 1, 3, 7, 1, 6, 4, 3, 2, 2, 2, 1, 4, 2, 3, 3, 1

- 2 What are the outliers, if any, on this line plot? Explain why these outliers may have occurred.

- 3 Are there any gaps on this line plot? Where do they occur? _____

- 4 Are there any clusters that appear on this line plot? Where do they occur? _____

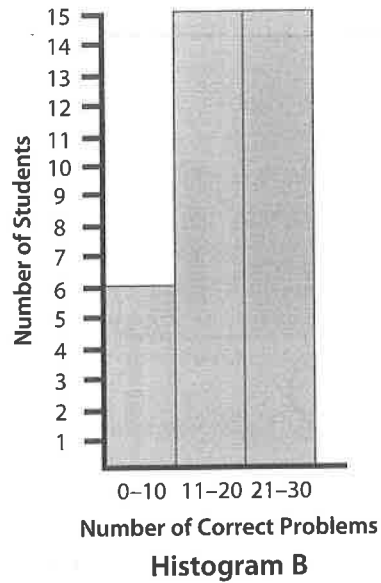
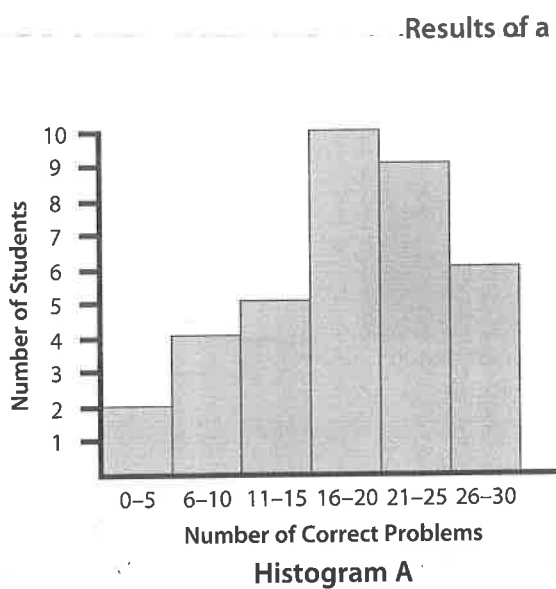
- 5 What is the average number of pets owned by the students? _____

- 6 Toss out the outlier. How does that change your average? _____

Read a Histogram

A **histogram** looks similar to a vertical bar graph. A histogram has one variable, and data is sorted into categories of this one variable. The range of your variable is important. If the range is too wide or too narrow, it may be difficult to interpret the data.

Results of a Math Test



Solve.

- 1 How many students got between 16 and 20 problems correct?
Which histogram(s) gives you this answer? _____

- 2 How many students got between 21 and 30 problems correct?
Which histogram(s) gives you this answer?

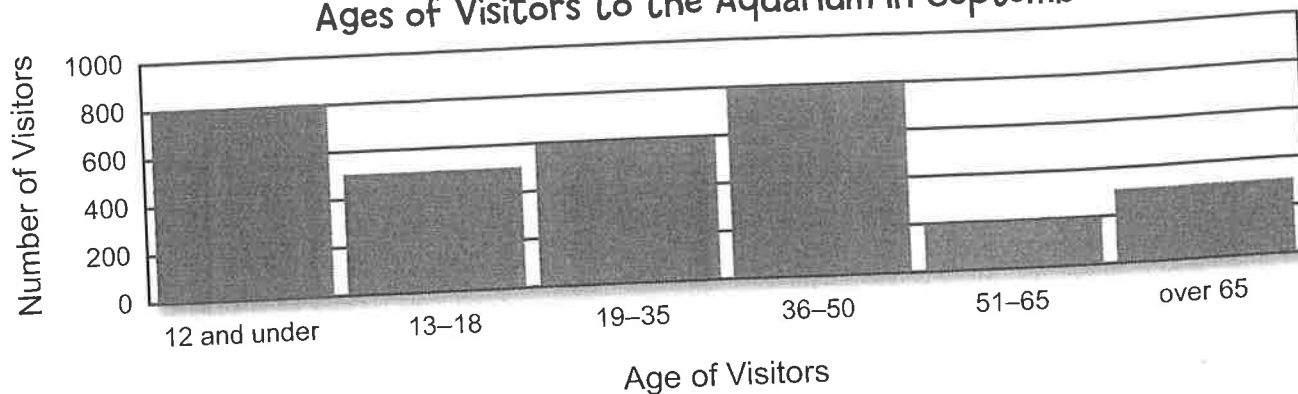
- 3 Both histograms show the results of the same math test. How are the two histograms different? How are they the same?

- 4 Which histogram gives more useful data? Explain.

- 5 How could you change the histogram to better show those students who received a passing score?

An aquarium kept track of the ages of its visitors for the month of September.

Ages of Visitors to the Aquarium in September



- 1 What size interval is used on the y-axis? _____
- 2 How many people between the ages of 36 and 65 visited the aquarium? _____
- 3 How many visitors were children ages 12 and under? _____
- 4 Describe two ways staff at the aquarium might use the data in this histogram.

BRAIN STRETCH



Chris wants to buy some pop for a party. He can buy a case of 24 cans or he can buy 4 six-packs of cans. The case costs \$8.44 and each six-pack costs \$2.85. Which is the better buy?