

back of p32

Find the mean, median, mode and range of the ten test scores.

92, 84, 95, 77, 74, 80, 95, 70, 45, 76

Does the set of data have an outlier? If you take the outlier away, what is the mean?

## Choosing an Appropriate Measure of Central Tendency

A measure of central tendency is a number used to describe the majority of a set of data.

There are 3 measures of central tendency.

Mean      Median      Mode

Choose the best one for each set of data.

1. Use mean if there are no outliers. (Outliers are numbers that are much higher or lower than most of the data.)

21, 25, 28, 37, 31, 35 (no outliers)

2. Use median when there is an outlier.

41, 43, 51, 47, 101, 50, 45, 53, 57 (101 is an outlier)

3. Use mode there are many repeated numbers especially in the middle of the data.

10, 10, 12, 14, 12, 10, 12, 10, 12, 12, 12, 10, 14, 12, 12  
(12 is repeated 8 times)

- 1 Analyze the data and decide which measure of center is most appropriate.

Hours of Television watched in a week:  
15, 16, 19, 14, 43, 21, 13, 15,

- A Mean (average)
- B Median (middle)
- C Mode (most frequent)

- 2 The principal wanted to know which grade level was attending tutoring the most.

Grade Level of Students attending tutoring

6, 6, 7, 8, 7, 6, 8, 7, 6, 7, 7, 7,  
6, 8, 8, 7, 6, 7, 7, 6, and 8

- A Mean
- B Median
- C Mode

Feb 18-11:23 AM

- 3 Which measure of center is most appropriate when the data has no outliers?

- A Mean (average)
- B Median (center)
- C Mode (most frequent)

Feb 18-11:29 AM

- 4 Which measure of center is most appropriate when the data has outliers and no gaps in the middle

- A Mean (average)
- B Median (center)
- C Mode (most frequent)

- 5 Tommy wanted to find his grade in science. These are his grades:  
88, 84, 78, 91, 88, and 90.

Which measure of center would be most appropriate for finding Tommy's grade?

- A Mean (average)
- B Median (middle)
- C Mode (most frequent)

## Understanding Circle Graphs

The table shows the results of a Busch Gardens survey. A group of students were asked to name their favorite rollercoaster at Busch Gardens. Display the results of the survey in a circle graph.

Rollercoaster	Number
Griffon	24
Lochness Monster	12
Apollo's Chariot	6
Alpengeist	6

Step 1: Find the total number of students surveyed: \_\_\_\_\_

Step 2: Write fractions showing the number of votes that each rollercoaster received over the total number of students surveyed. Be sure to simplify.

Griffon =

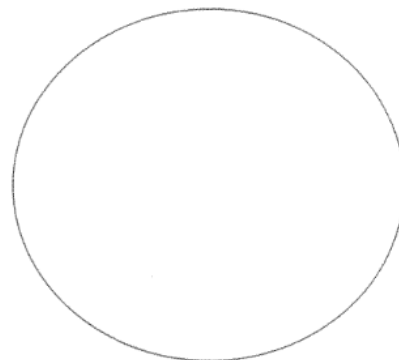
Lochness Monster =

Apollo's Chariot =

Alpengeist =

Step 3: Use what you know about fractions to divide the circle.

Favorite Rollercoasters of \_\_\_\_\_ Students



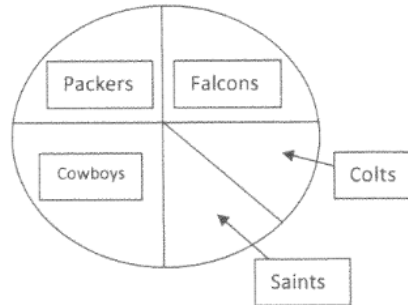
Step 4: Label each section of the graph with the type of rollercoaster represented by that part of the graph.

Read and interpret the circle graph.

Favorite Football Teams of 80 Students

How many students were surveyed? \_\_\_\_\_

Complete the chart based on the circle graph.



Team	Fraction	No. of Students
Packers		
Falcons		
Cowboys		
Saints		
Colts		

Favorite Video Game Console of 500 Customers

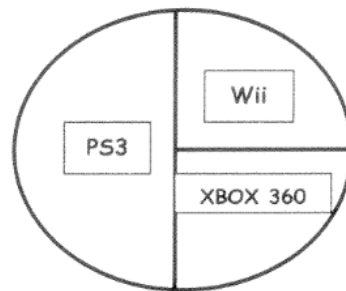
How many more customers prefer the PS3 console than XBOX 360? \_\_\_\_\_

How many customers prefer the Wii console? \_\_\_\_\_

What fraction of customers prefer the XBOX 360 console? \_\_\_\_\_

What fraction of customers prefer the Wii and XBOX 360? \_\_\_\_\_

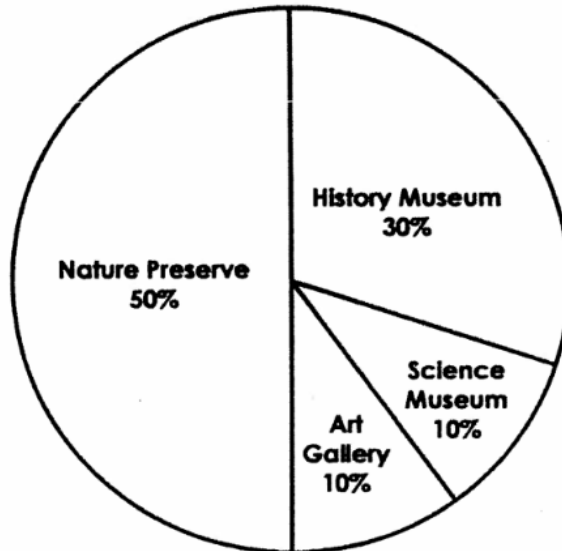
What percentage of customers prefer a console other than the Wii? \_\_\_\_\_



## Round and Round and Round

Mr. Sobieski asked his class to vote on where they would most like to go on a field trip. The choices he gave them were: history museum, science museum, art gallery, and nature preserve.

- All 30 students cast one vote each. The pie graph below shows the results.



Complete the table below  
votes each choice

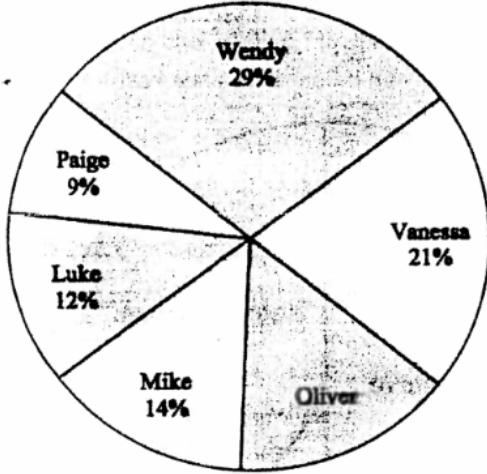
Destination	Number of Votes
History Museum	
Science Museum	
Art Gallery	
Nature Preserve	

to show how many  
received.

How many more students chose the history museum than the science museum? \_\_\_\_\_

How many students chose the art gallery or the nature preserve? \_\_\_\_\_

**Class Election Results**



Use the graph on the left to answer the following questions.

Who won the election? \_\_\_\_\_

Who had the least number of votes? \_\_\_\_\_

What percent of people voted for Oliver?  
\_\_\_\_\_

What percent of people voted for either Luke or Oliver? \_\_\_\_\_

Which two candidates had about half the votes? \_\_\_\_\_

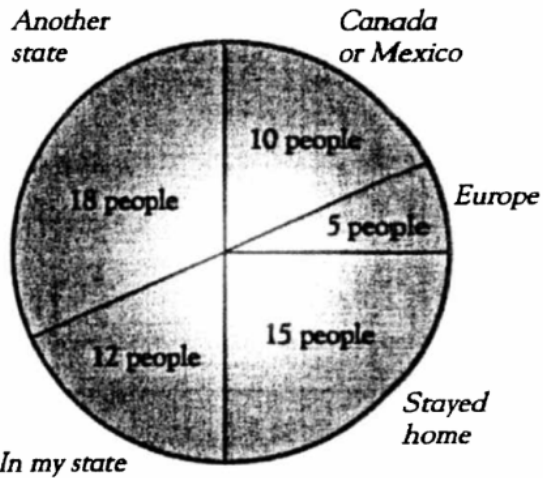
60 people were asked where they went on vacation last year. The circle graph shows the results.

What fraction of people vacationed in Canada or Mexico, or in Europe? \_\_\_\_\_

What fraction of people vacationed in their state or another state? \_\_\_\_\_

What fraction of people did not stay at home?  
\_\_\_\_\_

What fraction of people vacationed in another state? \_\_\_\_\_



IXL Grade 7

BB.2, BB.3, BB.5, BB.8, BB.9

smart score 90