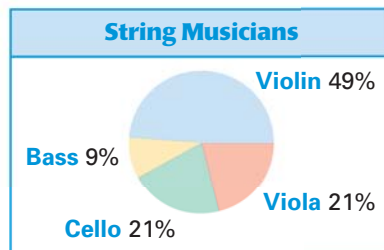


# Circle Graphs TEKS 8.12.C

You can use a **circle graph** to display data as sections of a circle. The entire circle represents all of the data. The sections of the circle may be labeled using the actual data or the data expressed as fractions, decimals, or percents. When the data are expressed as fractions, decimals, or percents, the sum of the data is 1.

## EXAMPLE

Use the circle graph, which shows the string musicians in a college orchestra. (a) What percent of the string musicians in the orchestra play the cello? (b) Which instrument do almost half the string musicians in the orchestra play?



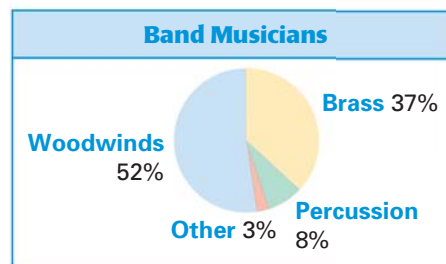
- The cello section of the circle is labeled 21%.
  - ▶ Of the string musicians in the orchestra, 21% play cello.
- The violin section of the circle is labeled 49%, which is almost 50%. Also, the violin section of the circle is almost half the total area of the circle.
  - ▶ Almost half of the string musicians in the orchestra play the violin.

## PRACTICE

In Exercises 1–4, use the circle graph above.

- What percent of the string musicians in the orchestra play the bass?
- How does the number of string musicians who play the viola compare with the number of string musicians who play the cello?
- The violinists are divided evenly into two groups, first violin and second violin. What percent of the string musicians are in each of these groups?
- If there are 57 string musicians in the orchestra, how many musicians play each type of instrument?

In Exercises 5–10, use the circle graph, which shows the types of instruments played by musicians in a college band.



- What percent of the musicians in the band play a brass instrument?
- Which type of instrument do 8% of the musicians in the band play?
- Which type of instrument do more than half of the musicians in the band play?
- The instruments in the “Other” category are harp, string bass, and keyboard. What percent of the band musicians play one of these instruments?
- In this band, which type of instrument is played by about 5 times as many musicians as play percussion instruments?
- There are 91 musicians in the band. How many more musicians play a woodwind than play a percussion instrument?