## Stem-and-Leaf

## Graph

Noontime Temperatures


$$
\begin{gathered}
\text { Key } \\
\hline 8 \mid 3=83
\end{gathered}
$$

Bar Graph


## Circle Graph

Juggling Club Budget


## Box-and-Whisker Plot

## Bar Graph

## Stem-and-Leaf Graph

$\Rightarrow$ Use with categorical data
$\Rightarrow$ Preserves original data
$\Rightarrow$ Categories are placed on the $x$-axis.
$\Rightarrow$ Frequency is graphed on the $y$-axis.
$\Rightarrow$ Bars must have spaces between them!
$\Rightarrow$ Bar graphs make it easy to figure out which categories occur most frequently.

## Box-and-Whisker Plot

$\Rightarrow$ Use with quantitative data
$\Rightarrow$ Original data is lost.
$\Rightarrow$ The end of each whisker shows the lowest and highest data values.
$\Rightarrow$ The box shows the middle $50 \%$ of the data.
$\Rightarrow$ The box is composed of three lines. The middle line is the median of the data set. The first line is the median of the first half of the data set. The last line is the median of the last half of the data set.
$\Rightarrow$ Use with quantitative data
$\Rightarrow$ Stems are one digit
$\Rightarrow$ Rearrange the leaves into numerical order
$\Rightarrow$ Preserves the original data.
$\Rightarrow$ Stem-and-leaf graphs make it easy to find the lowest value, highest value, and most common value (mode) of the data set.
$\Rightarrow$ Stem-and-leaf graphs give us an idea of the "shape" of the data.

## Circle Graph

$\Rightarrow$ Use with categorical data
$\Rightarrow$ Original data is lost unless we know how many responses were collected.
$\Rightarrow$ Useful to compare categories to one another.
$\Rightarrow$ Each section of the circle corresponds to the percent of that response in relation to the whole.

