Summarizing Qualitative Data

Consider the following (made up) data.

Thirty people were chosen randomly from the Dayton area and asked to name their favorite pizza. The results were as follows:

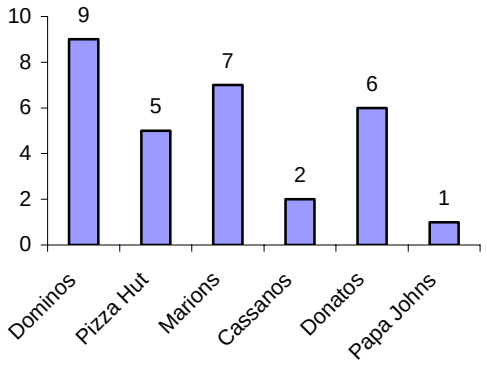
Dominos	Cassanos	Papa Johns	Marions	Pizza Hut	Marions
Dominos	Marions	Pizza Hut	Dominos	Marions	Marions
Pizza Hut	Donatos	Donatos	Dominos	Dominos	Cassanos
Marions	Dominos	Pizza Hut	Marions	Donatos	Donatos
Dominos	Dominos	Donatos	Dominos	Pizza Hut	Donatos

The first step in summarizing qualitative data is to make a **FREQUENCY DISTRIBUTION** or a **RELATIVE FREQUENCY DISTRIBUTION.** For a frequency distribution, simply count the number of observations in each category. Notice that the total number of observations is 30. To make a relative frequency distribution, just divide each frequency by total number of observations.

Pizza	**Frequency**	**Relative Frequency**
Domino	9	0.3
Pizza Hut	5	0.166667
Marions	7	0.23333
Cassanos	2	0.066667
Donatos	6	0.2
Papa Johns	1	0.03333
	30	1.000

To make a **BAR CHART:**

Make one bar for each category. Each bar should be of equal width and the bars should be equally spaced. The vertical axis should be scaled to reflect your frequencies (or relative frequencies). The height of each bar should be the frequency (or relative frequency) of its category.



To make a **PIE CHART:**

Make a relative frequency distribution. Make a third column for degrees. Multiply each relative frequency by 360 to get degrees. Draw a circle. Starting anywhere within the circle, use a protractor to measure the angle of each wedge (or estimate the angles).

Pizza	**Rel. Freq.**	**Degrees**
Dominos	0.3	108
Pizza Hut	0.16667	60
Marions	0.23333	84
Cassanos	0.06667	24
Donatos	0.2	72
Papa Johns	0.03333	12