

Recording Data – Tally Table

Example: Election votes

Candidate	Tally of votes	Total
Bob	 	23
Jane		17
Sally		13
Tom		5

The pie chart / sector graph

To draw the pie chart, you need to know what *fraction* of the total votes each candidate got. To work this out, you need to work out how many votes were collected in total *for all the candidates*:

Total votes = 23+17+13+5

Total votes = 58

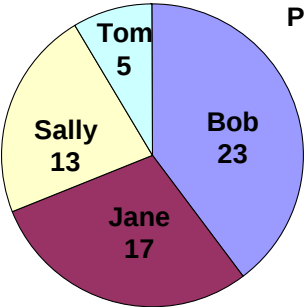
Candidate	Fraction of Total Votes
Bob	$\frac{23}{58} = 0.40 = 40\%$
Jane	$\frac{17}{58} = 0.29 = 29\%$
Sally	$\frac{13}{58} = 0.22 = 22\%$
Tom	$\frac{5}{58} = 0.086 = 8.6\%$

Statistics

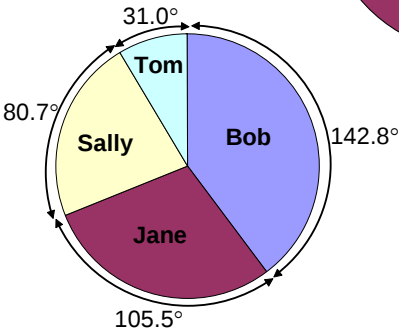
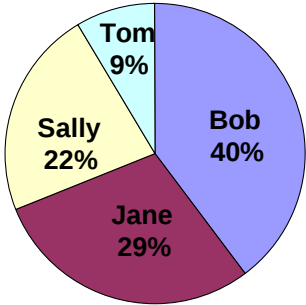
If yu rotate around a circle completely, you will have rotated through 360°. We need to draw wedges representing the fraction of votes each candidate got.

Candidate	Wedge Angle
Bob	$\frac{23}{58} \times 360^\circ = 142.8^\circ$
Jane	$\frac{17}{58} \times 360^\circ = 105.5^\circ$
Sally	$\frac{13}{58} \times 360^\circ = 80.7^\circ$
Tom	$\frac{5}{58} \times 360^\circ = 31.0^\circ$

**Number of Votes Obtained
By Each Candidate**

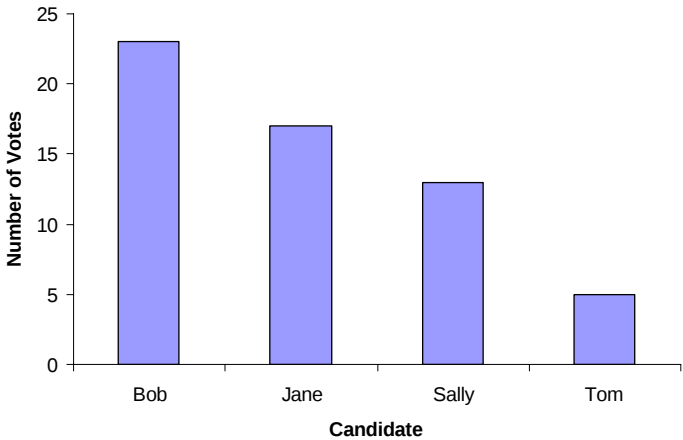


**Percentage of Total Vote Obtained
By Each Candidate**



Column Graph

The graph has two *axes*. The horizontal axis shows the different *categories* in the statistical problem – in our case, the different candidates people could vote for. The vertical axis shows the *quantities* of the things we’re counting or surveying – in this case, the *votes* for each of the candidates.



Bar Graph

A bar graph’s basically the same as a column graph, except that it has its two axes swapped over, which means that the columns become horizontal bars. Here’s what a bar graph would look like for the vote data:

