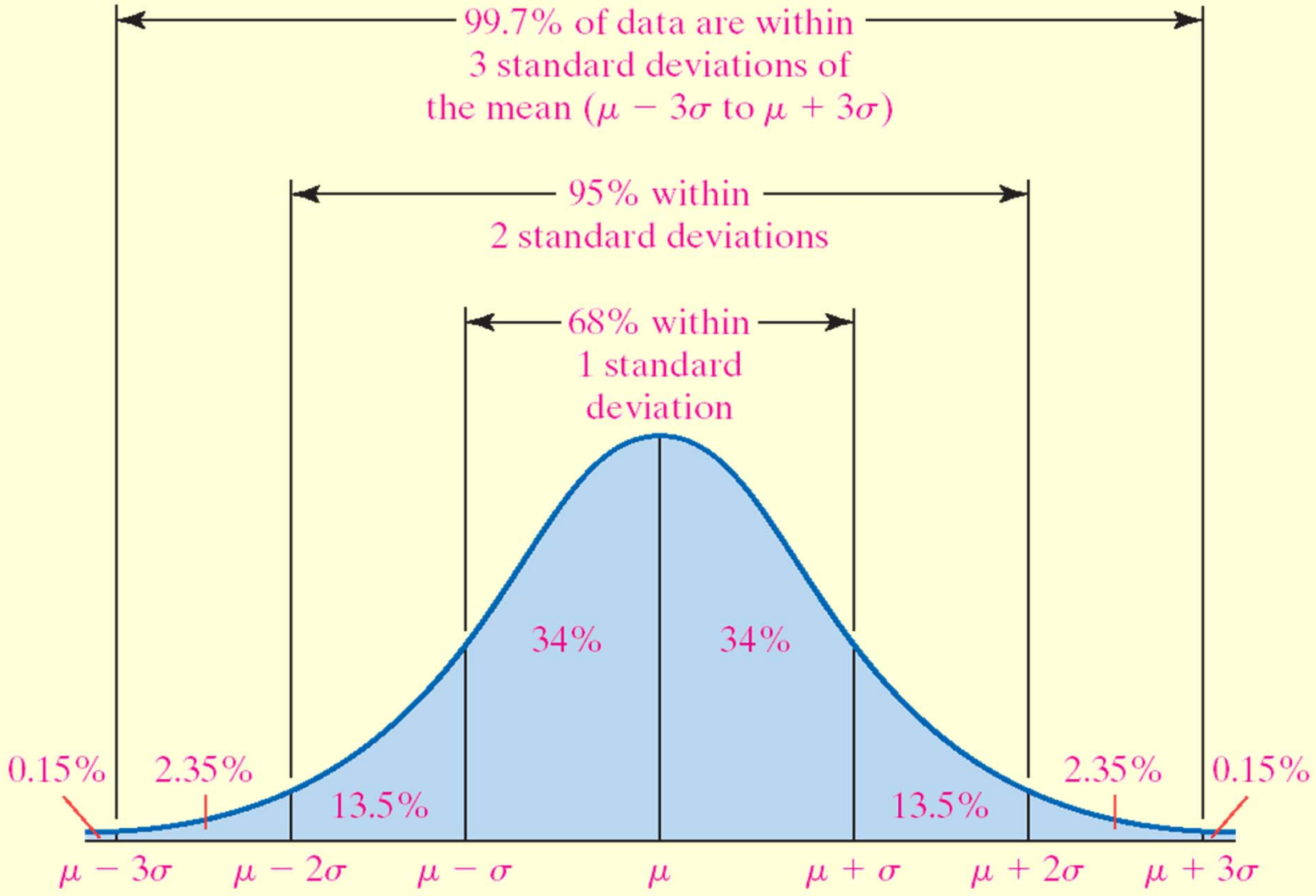
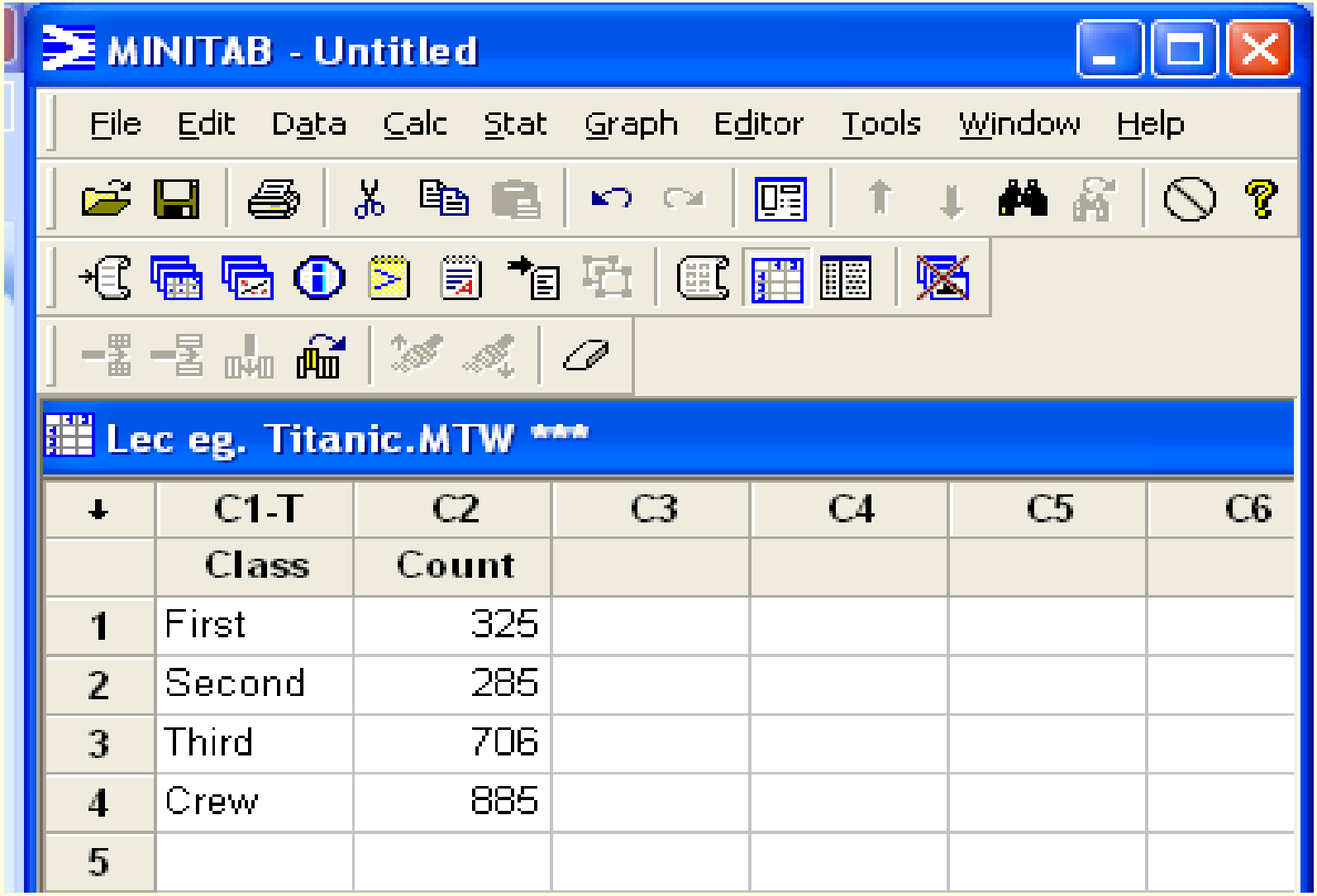
Parameters vs. Statistics

	Population	Sample
Size	N	n
Mean	μ	$\bar{X}$
Standard deviation	σ	s
Proportion	p	$\hat{p}$

The Empirical Rule or The 68–95–99.7 Rule



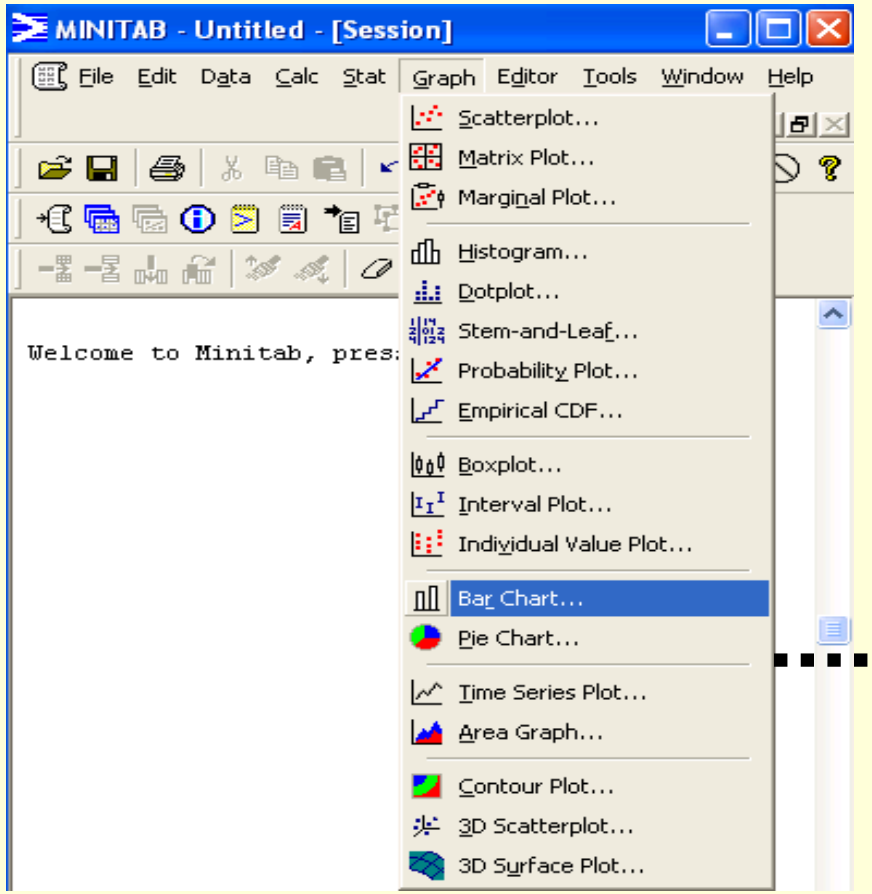
Using Minitab : Entering Data



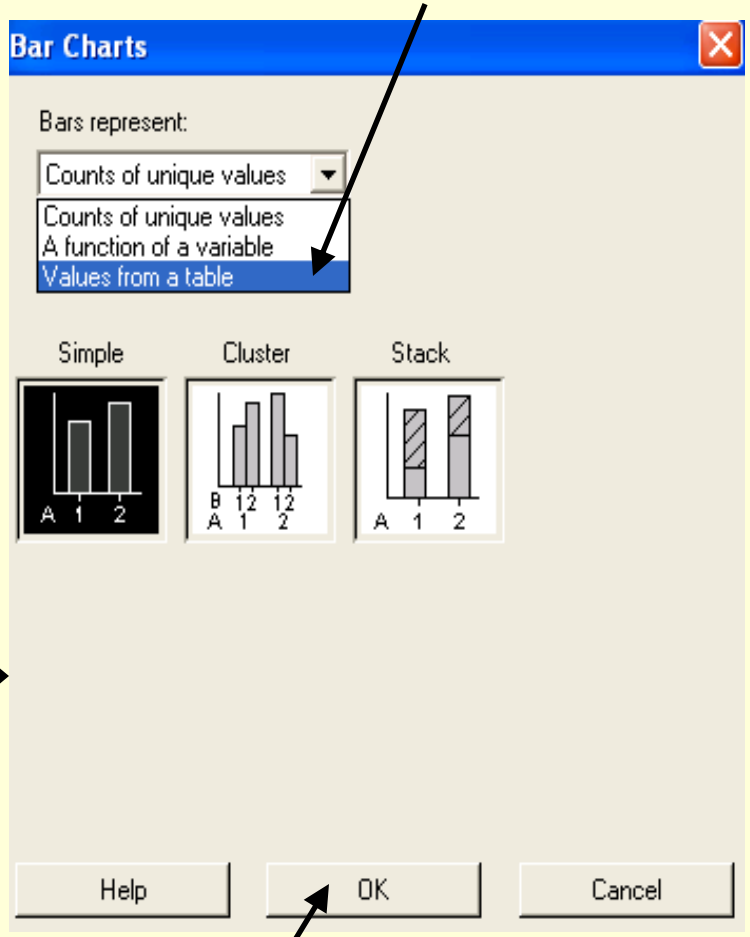
↓	C1-T	C2	C3	C4	C5	C6
	Class	Count				
1	First	325				
2	Second	285				
3	Third	706				
4	Crew	885				
5						

Using Minitab: Bar Chart

1. Choose Graph / Bar Chart…

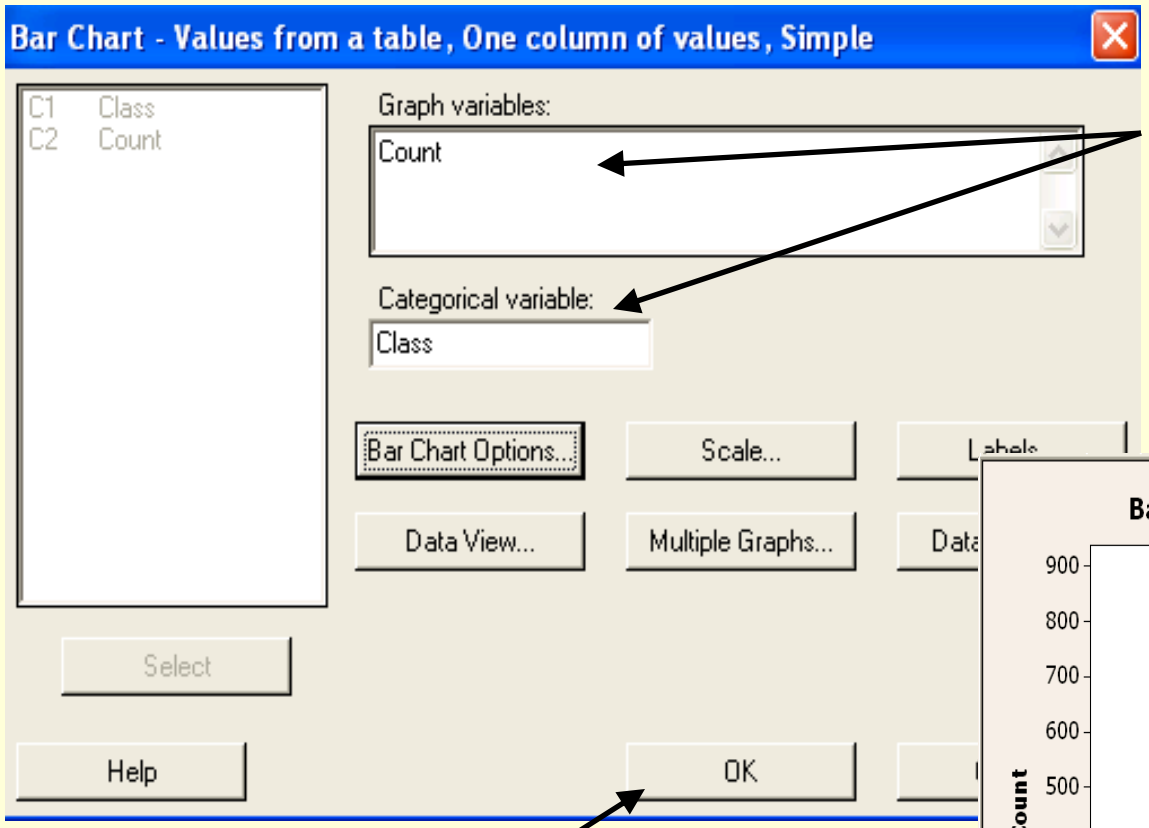


2. Select “value from a table”



3. Click OK

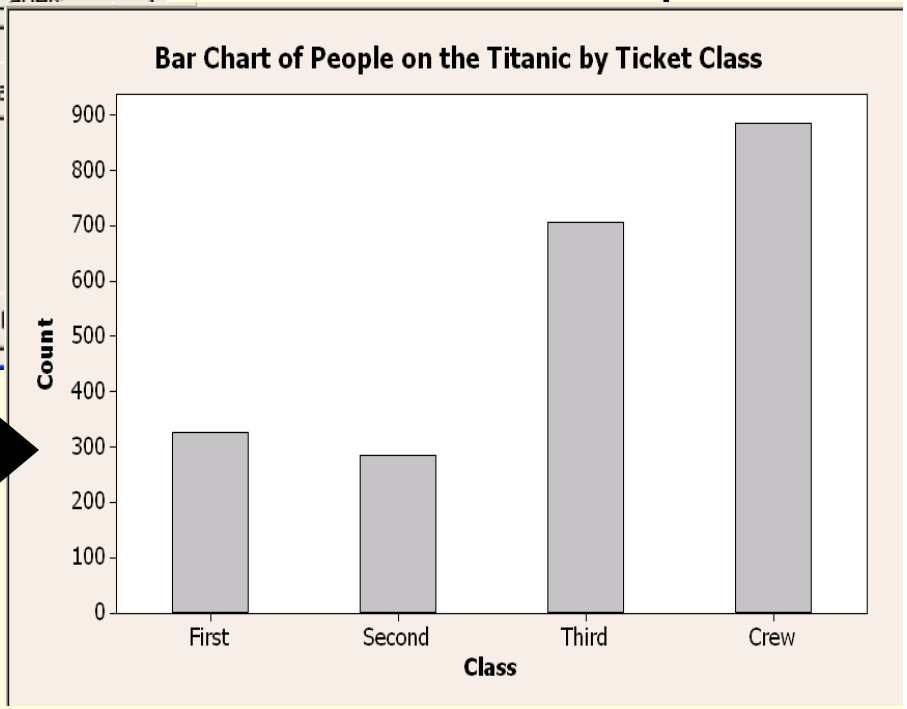
Using Minitab: Bar Chart



4. Select appropriate data column for graph variable and categorical variable

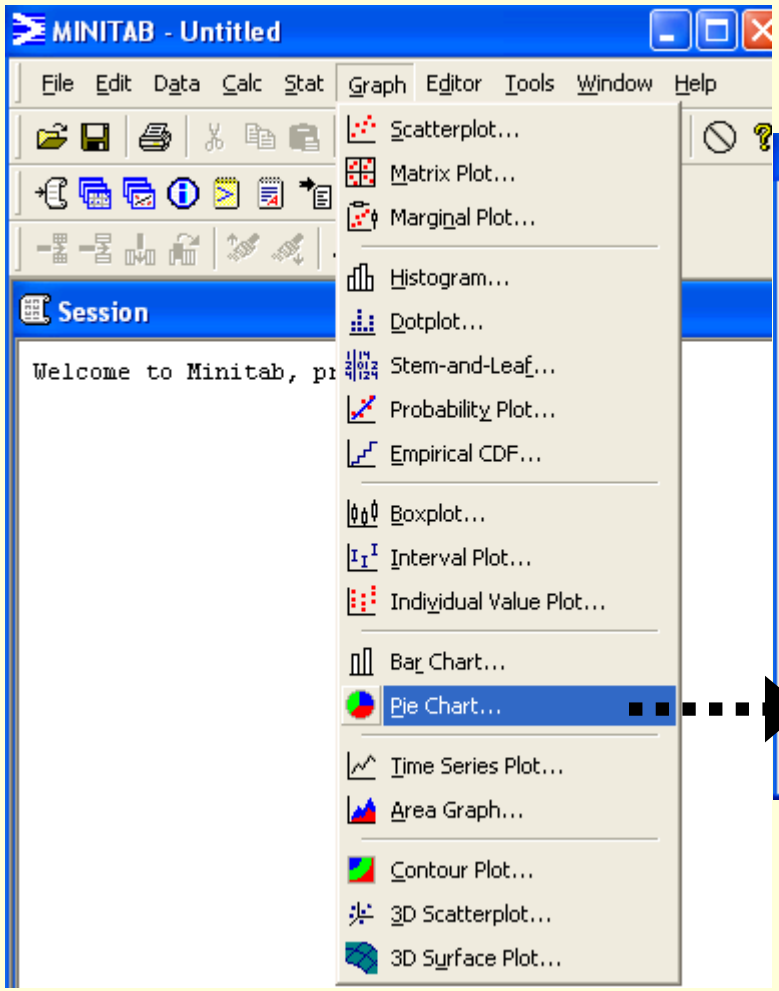
5. Click OK

Minitab output:

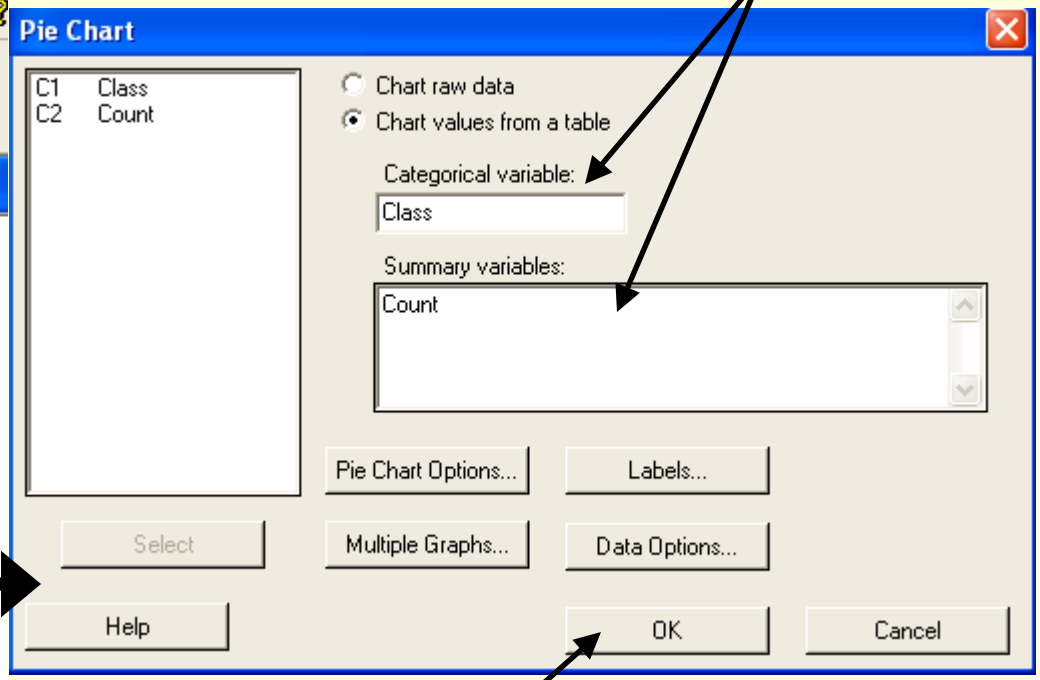


Using Minitab: Pie Chart

1. Choose Graph / Pie Chart…



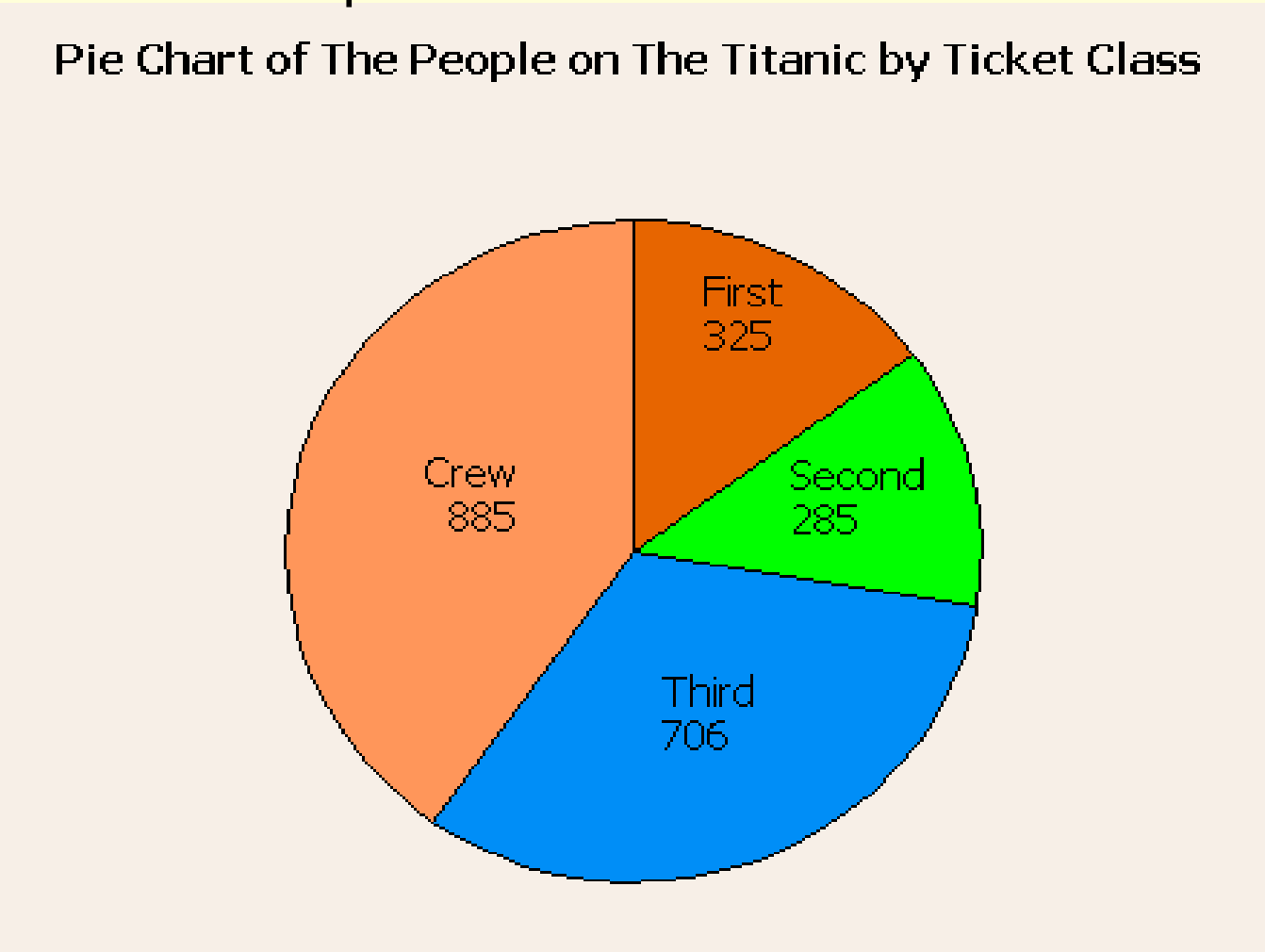
2. Select appropriate data column for categorical variable & summary variable



3. Click OK

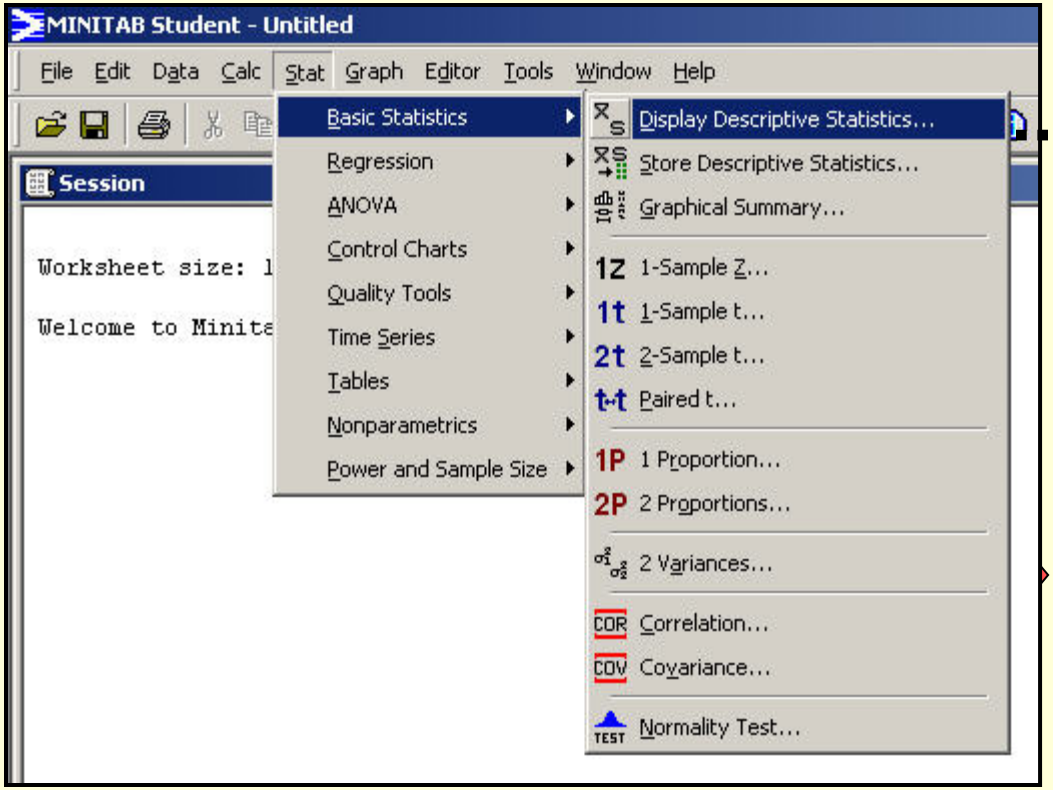
Using Minitab: Pie Chart

Minitab output:

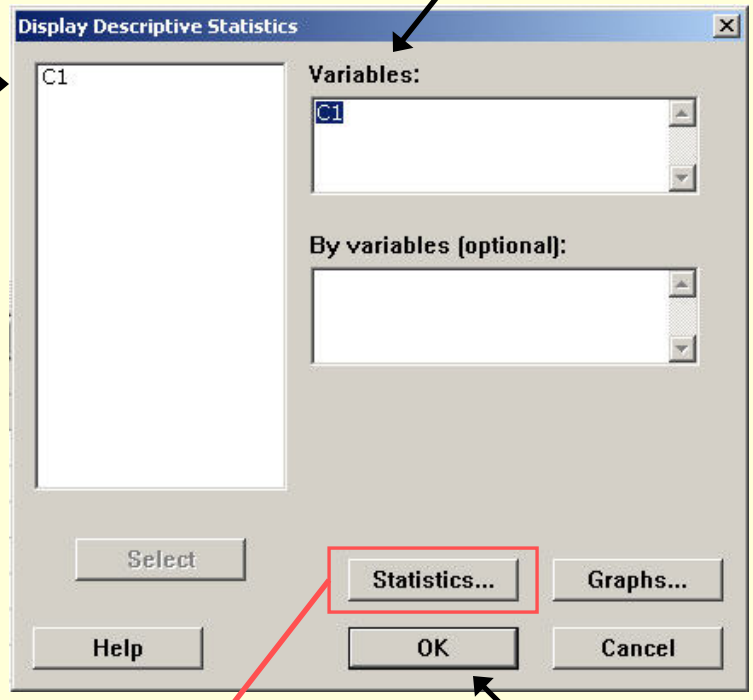


Using Minitab: Descriptive Statistics

1. Select Stat / Basic Statistics / Display Descriptive statistics…



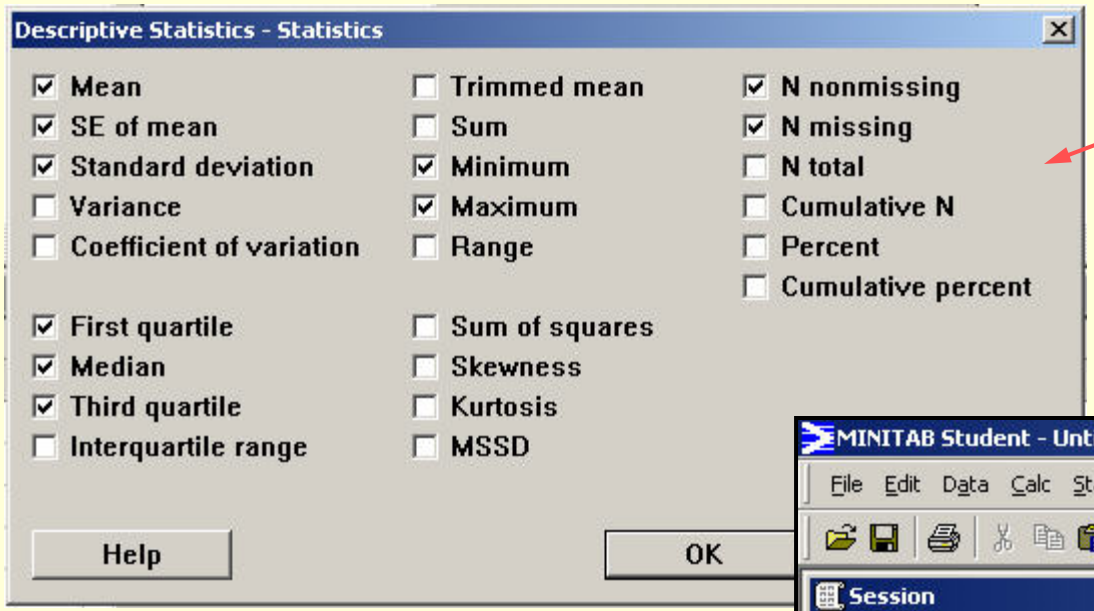
2. Choose appropriate data column



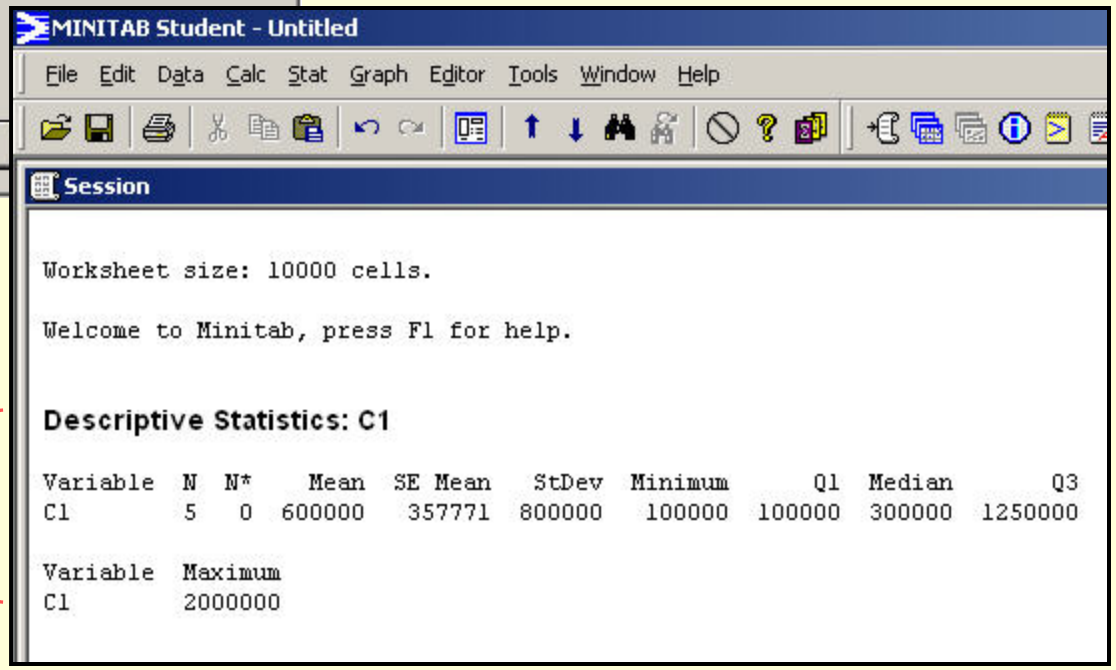
See next slide for options

3. Click OK

Using Minitab: Descriptive Statistics



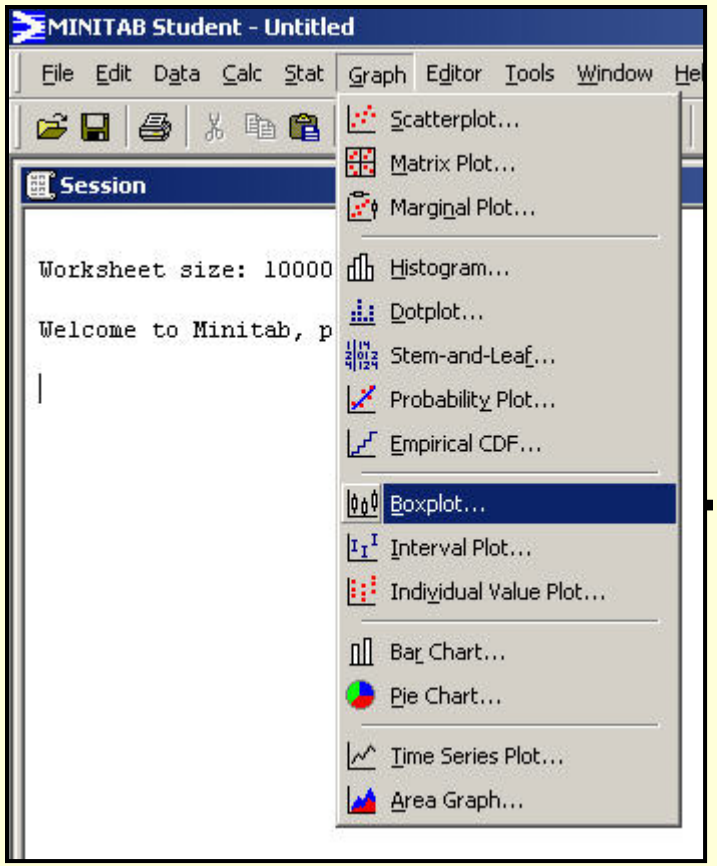
Descriptive Statistics Options



Minitab output

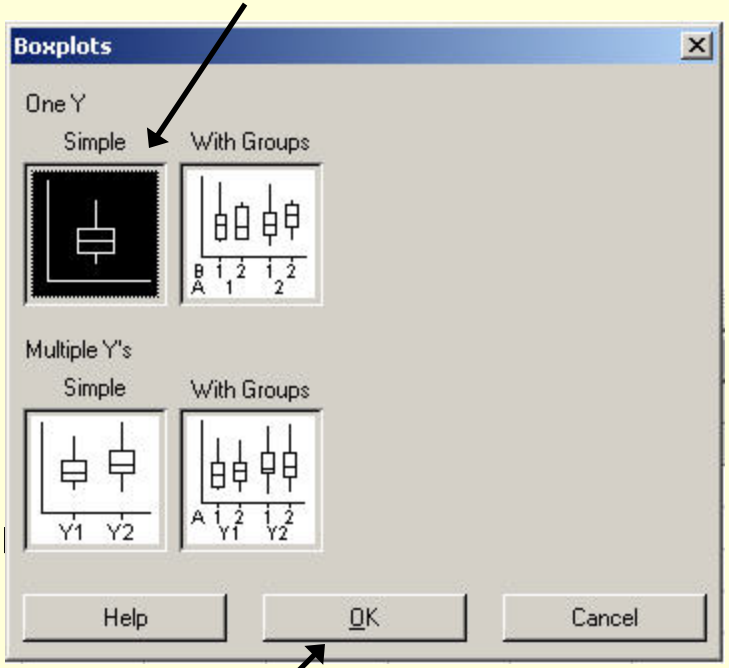
Using Minitab: Boxplot

1. Select Graph / Boxplot…



2. Choose desired plot type:

(note that Minitab uses a vertical format for boxplots)



3. Click OK

Using Minitab: Boxplot

Minitab output:

Minitab displays outliers with a * symbol

Data:
27
10
5
5
4
3
3
2
2
2
0