

## About Charting

Charts are graphic depictions of data in your worksheet. Excel can build a chart automatically based on existing data, after which the chart can be moved, resized, and deleted without affecting your worksheet data. Charts do not appear within a specific cell, but rather appear over other cells. When creating a chart, there are some basic rules to keep in mind to make the process easier. This document gives an overview of the necessary elements of a chart.

### Charting Rules

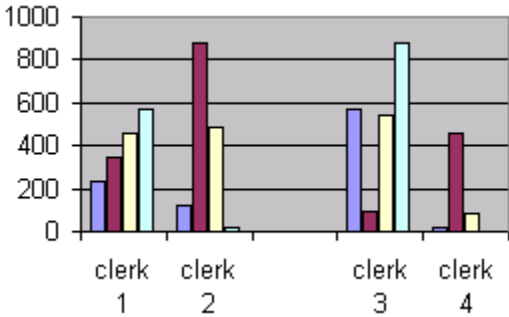
Excel follows seven basic rules for creating charts. Understanding these rules can help avoid frustration and reduce the steps necessary for creating charts. Once the chart is created, you can modify it to meet your needs.

Rule	Description
<b>Rule 1</b>	Excel does not automatically add a chart title to your chart based on the first row of selected information. A chart title can be added during the creation process or later
<b>Rule 2</b>	Excel does not automatically add a chart subtitle to your chart based on the second row of selected information. A subtitle can be added after the chart is created
<b>Rule 3</b>	Blank rows and columns in your information are not ignored. Excel will leave a blank bar or pie slice for every blank row or column in your information
<b>Rule 4</b>	If the data contains more rows than columns, Excel will plot the data by column. The first column becomes the x-axis labels; the balance of the columns is the data series. The first row becomes the legend's labels
<b>Rule 5</b>	If the data contains more columns than rows, Excel will plot the data by row. The first row becomes the x-axis labels; the balance of the rows is the data series. The first column becomes the legend's labels
<b>Rule 6</b>	If the data contains an equal number of rows and columns, Excel defaults to plot the data by rows but gives you the option to plot by columns
<b>Rule 7</b>	If only numeric data is selected, Excel follows rules 4 and 5

### Bad Data Sample

In the following example, notice how the blank cells in the data series create blank spaces in the chart. In addition, the lack of row labels makes it difficult for readers to understand the chart, because no specific labels appear on the legend to guide them.

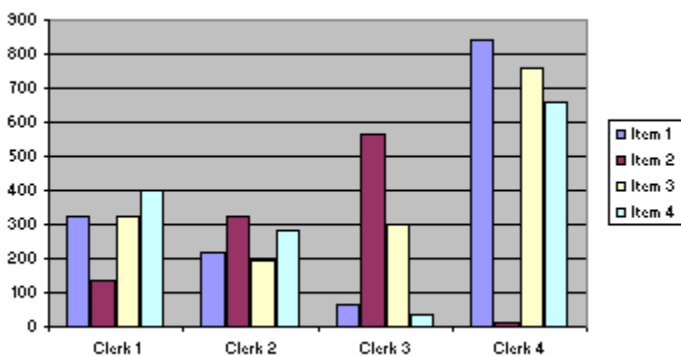
clerk 1	clerk 2		clerk 3	clerk 4
234	123		567	23
345	875		98	456
456	482		543	85
567	23		876	



### Good Data Sample

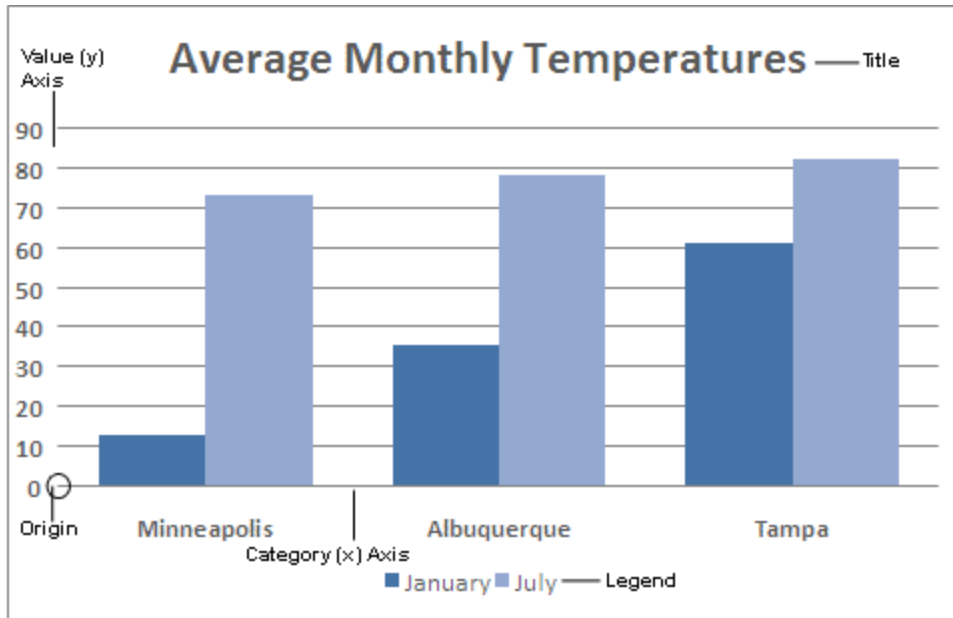
In the following example, notice that no blank spaces exist in the data series, so no empty spaces exist in the chart. In addition, the added row labels have made the legend much easier to understand.

	Clerk 1	Clerk 2	Clerk 3	Clerk 4
Item 1	323	216	65	841
Item 2	135	321	564	12
Item 3	321	197	301	761
Item 4	401	285	34	657



### About Charting Elements

A chart contains several elements, which are illustrated in this graphic.



The following list describes the various elements in this chart.

### **Title**

Identifies the chart, and frequently includes a date or time period.

EXAMPLE: Average Monthly Temperatures

### **Category (X) Axis**

Identifies the data being charted on the horizontal x-axis; values in this section will be used as labels along the x-axis.

EXAMPLE: Cities (Minneapolis, Albuquerque, Tampa)

### **Category Axis Title**

Identifies the title of the category (x) axis.

### **Value (Y) Axis**

Identifies the data being charted on the vertical y-axis; values in this section will determine where points fall in relation to the y-axis.

NOTE: The x-axis can also be used as a value axis.

EXAMPLE: Average temperatures (0–90)

### **Value Axis Title**

Identifies the title of the value (y) axis.

### **Legend**

Identifies the information being charted. This is especially important when you have more than one type of information charted. Using the example of the above chart, the legend identifies which information relates to each month.

**Ticks**

Ticks, indicating measurement increments, appear on both the y-axis and x-axis and can help improve the readability of a chart. Both y-axis and x-axis ticks are optional.

**Origin**

The origin is the point where the x-axis and y-axis meet. The origin is generally at zero (0) but can be modified.

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