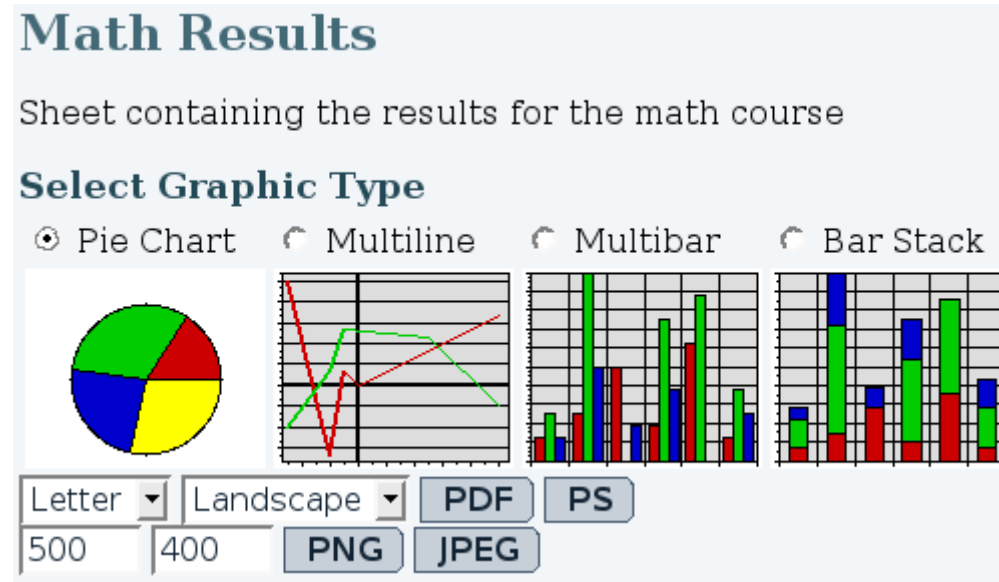


# Spreadsheet Graphics and Charts

Graphics can be created using the Graph button in the spreadsheet view or from the sheet listing, which takes the user to **tiki-graph\_sheet.php?sheetId=1** (1 or the numeric id of that sheet). Two simple forms are presented to select the parameters of the graphic.

## SELECT THE GRAPHIC TYPE AND OUTPUT FORMAT



The screenshot shows a web form titled "Math Results" with the subtitle "Sheet containing the results for the math course". Under the heading "Select Graphic Type", there are four radio buttons: "Pie Chart" (selected), "Multiline", "Multibar", and "Bar Stack". Below the radio buttons are four small preview images: a pie chart, a multiline chart with two lines, a multibar chart with two bars per group, and a bar stack chart with three stacked bars per group. At the bottom of the form, there are two dropdown menus for paper size (set to "Letter") and orientation (set to "Landscape"), and two buttons for "PDF" and "PS". Below these are two input fields for width (set to "500") and height (set to "400"), and two buttons for "PNG" and "JPEG".

Fig. 1: First form

The radio buttons select the type of graphic to be generated. A first example will be made with the Pie Chart and a second one with Multibar. Multiline and Bar Stack use the same parameters as Bar Stack.

Multiple output formats are available. Depending on the installed extensions on the server, some elements might not be available. PDF and PostScript are printable format and require the paper size and orientation parameters. PNG and JPEG are images and

require height and width parameters in pixels.

If the objective is to include the graphic in a wiki page, the selected format will only be used for the preview.

## PARAMETERS

Figure 2 presents the parameters entered to obtain a pie chart from the spreadsheet and Figure 3 is the result obtained. The page is divided in three sections:

1. Parameter form
2. Spreadsheet
3. Wiki Plug-in

The parameter form is used to select the elements that will be displayed in the graphic. All parameters under the series label are value ranges from the spreadsheet in A1:Z99 format or comma separated list of elements (ex: Blue, ))LightBlue,LightGreen(()). The color and style series require special values:

### Color

- Red
- Green
- Blue
- Yellow
- Orange
- LightBlue

- LightGreen

Style

- Thin-LineStroke
- Thin-FillStroke
- Normal-LineStroke
- Normal-FillStroke
- Bold-LineStroke
- Bold-FillStroke
- Bolder-LineStroke
- Bolder-FillStroke

The spreadsheet is available as a reference to select the ranges.

The wiki plug-in is updated as the parameters are changed in the form. The code displayed can be pasted in a wiki page to display the graphic. The plug-in does not consider the selected output format. Instead, it will automatically select the best format available. If possible, it will display an image and link to a printable format. Preferred image format is PNG and preferred printable format is PDF.

## PIE CHART PARAMETERS

The following table presents the different field of the form, what they are used for and the behavior if left empty.

---

<b>Title</b>	<b>Used as the title of the graphic</b>
--------------	---

No title

Label	Caption in the legends
Value	Values used in the chart
Color	Colors used for the elements
Style	Change border type

---

No legend

Required

Automatically selected

Normal-FillStroke

The amount of elements in every range must be the same.

Title:

Series:

label

value

color

style

**show**

	A	B	C	D	E
1	Student ID	Homework	Midterm Exam	Final Exam	Total
2		10	40	50	
3	A	100	96	74	85.4
4	B	80	80	75	77.5
5	C	75	60	84	73.5
6	D	80	45	90	71
7	E	60	50	75	63.5
8	F	30	40	25	31.5
9	G	75	80	85	82
10	H	90	80	85	83.5
11	I	50	60	60	59
12	J	100	90	95	93.5
13	K	70	75	75	74.5
14	L	80	80	88	84
15	M	45	50	60	54.5
16	N	95	90	87	89
17	O	70	75	75	74.5
18	P	65	65	30	47.5
19	Average	72.8125	69.75	72.6875	71.525
20	Min	30	40	25	31.5
21	Max	100	90	95	93.5

**Wiki plug-in**

```
{ CHART(id=>3, type=>PieChartGraphic, format=>Letter,
orientation=>landscape, label=>B1:D1, value=>B2:D2, color=>, style=>,
width=>500, height=>400)}Weight{CHART}
```

Fig. 2: Parameters for the pie chart.

Weight

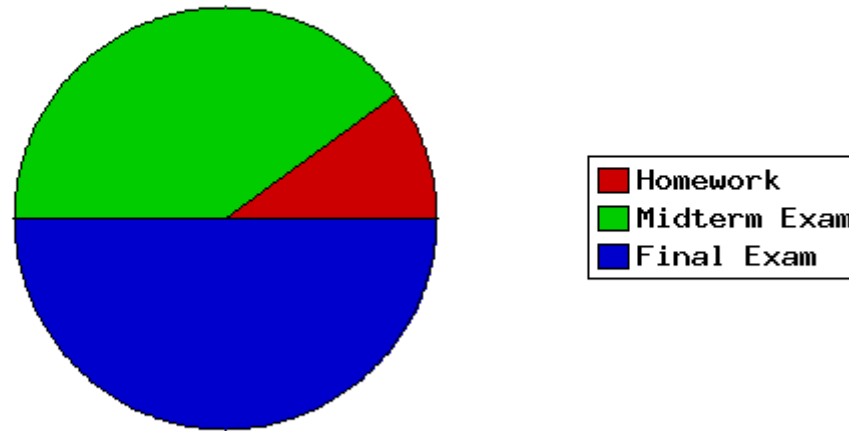


Fig. 3: Resulting pie chart.

## MULTIBAR PARAMETERS

Figure 4 presents the parameters used to create the graphic in Figure 5. Note that different size parameters have been used to suit the large amount of data. Here is the table presenting the different parameters.

---

Title



---

Title of the graphic

No title

Independant Scale

Horizontal Scale

Vertical Scale

Label

Color

Style

X

Determines if the graphic is vertical or horizontal

Location of the horizontal scale

Location of the vertical scale

Caption of the different elements in the legend

Colors used in the legend

Border type used

Independent scale range

No legend

Automatically  
selected

Normal-FillStroke

Required.

Y0

Y1-Y4

---

First dependant range

Additional dependant range

---

# Required.

The amount of elements in the Label, Color and Style ranges must be equal to the amount of Y ranges used. The amount of elements in the X range and all Y ranges must be the same.

### Math Results

Sheet containing the results for the math course

Title:	<input type="text" value="Math Results"/>
Independant Scale:	<input type="radio"/> Horizontal <input checked="" type="radio"/> Vertical
Horizontal Scale:	<input type="radio"/> Bottom <input checked="" type="radio"/> Top
Vertical Scale:	<input checked="" type="radio"/> Left <input type="radio"/> Right
Series:	
label	<input type="text" value="B1:E1"/>
color	<input type="text" value=", LightBlue, LightGreen, Red"/>
style	<input type="text"/>
x	<input type="text" value="A3:A18"/>
y0	<input type="text" value="B3:B18"/>
y1	<input type="text" value="C3:C18"/>
y2	<input type="text" value="D3:D18"/>
y3	<input type="text" value="E3:E18"/>
y4	<input type="text"/>

Fig. 4: Parameters for the multibar graphic



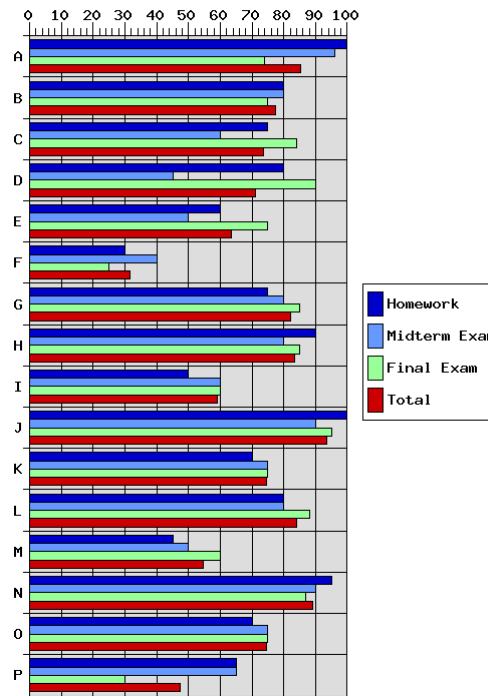


Fig. 5: Resulting multibar graphic

## SPREADSHEET JQ CHARTS

Another option is to make the charts reusing the [raphael.js charting library](#) embedded in the jquery spreadsheet. See:

# Chart Type Example

**Chart**

**Data Month Year**

Vertical Bar    "=BARCHART(D2:D13)

