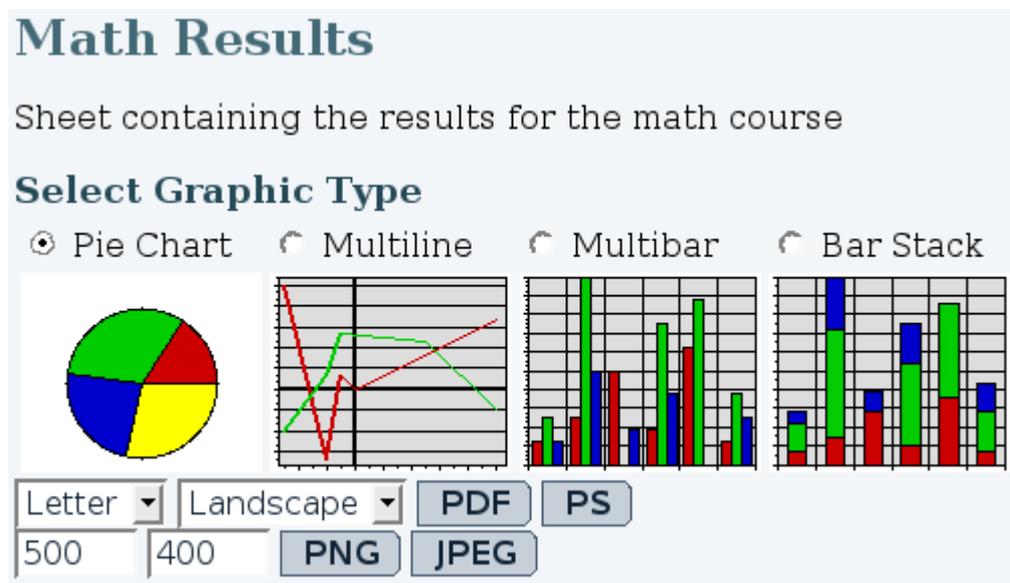


Graphics can be created using the Graph button in the spreadsheet view or from the sheet listing, which takes the user to **tiki-graph_sheet.php?sheetId=1** (1 or the numeric id of that sheet). Two simple forms are presented to select the parameters of the graphic.

Select the Graphic Type and Output Format



Math Results

Sheet containing the results for the math course

Select Graphic Type

Pie Chart Multiline Multibar Bar Stack

Letter Landscape PDF PS

500 400 PNG 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.

| | | |
|-------|----------------------------------|------------------------|
| Title | Used as the title of the graphic | No title |
| Label | Caption in the legends | No legend |
| Value | Values used in the chart | Required |
| Color | Colors used for the elements | Automatically selected |
| Style | Change border type | 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

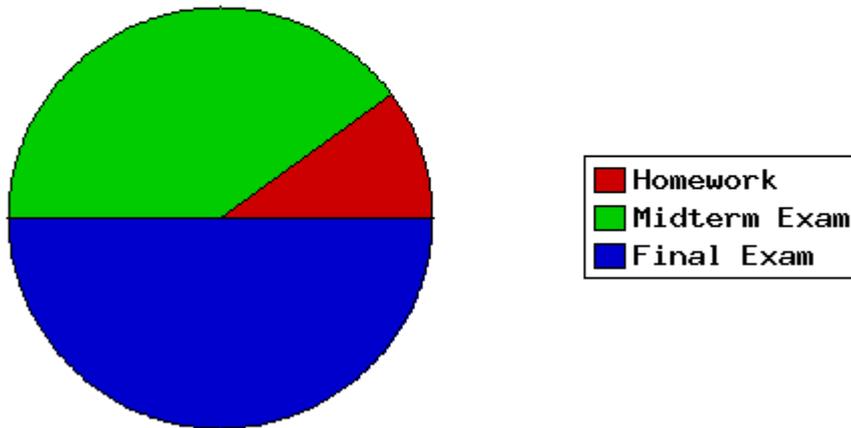


Fig. 3: Resulting pie chart.

Multibar Parameters

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

| | | |
|-------------------|---|------------------------|
| Title | Title of the graphic | No title |
| Independant Scale | Determines if the graphic is vertical or horizontal | |
| Horizontal Scale | Location of the horizontal scale | |
| Vertical Scale | Location of the vertical scale | |
| Label | Caption of the different elements in the legend | No legend |
| Color | Colors used in the legend | Automatically selected |
| Style | Border type used | Normal-FillStroke |
| X | Independant scale range | Required. |
| Y0 | First dependant range | Required. |
| Y1-Y4 | Additional dependant range | |

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

Math Results

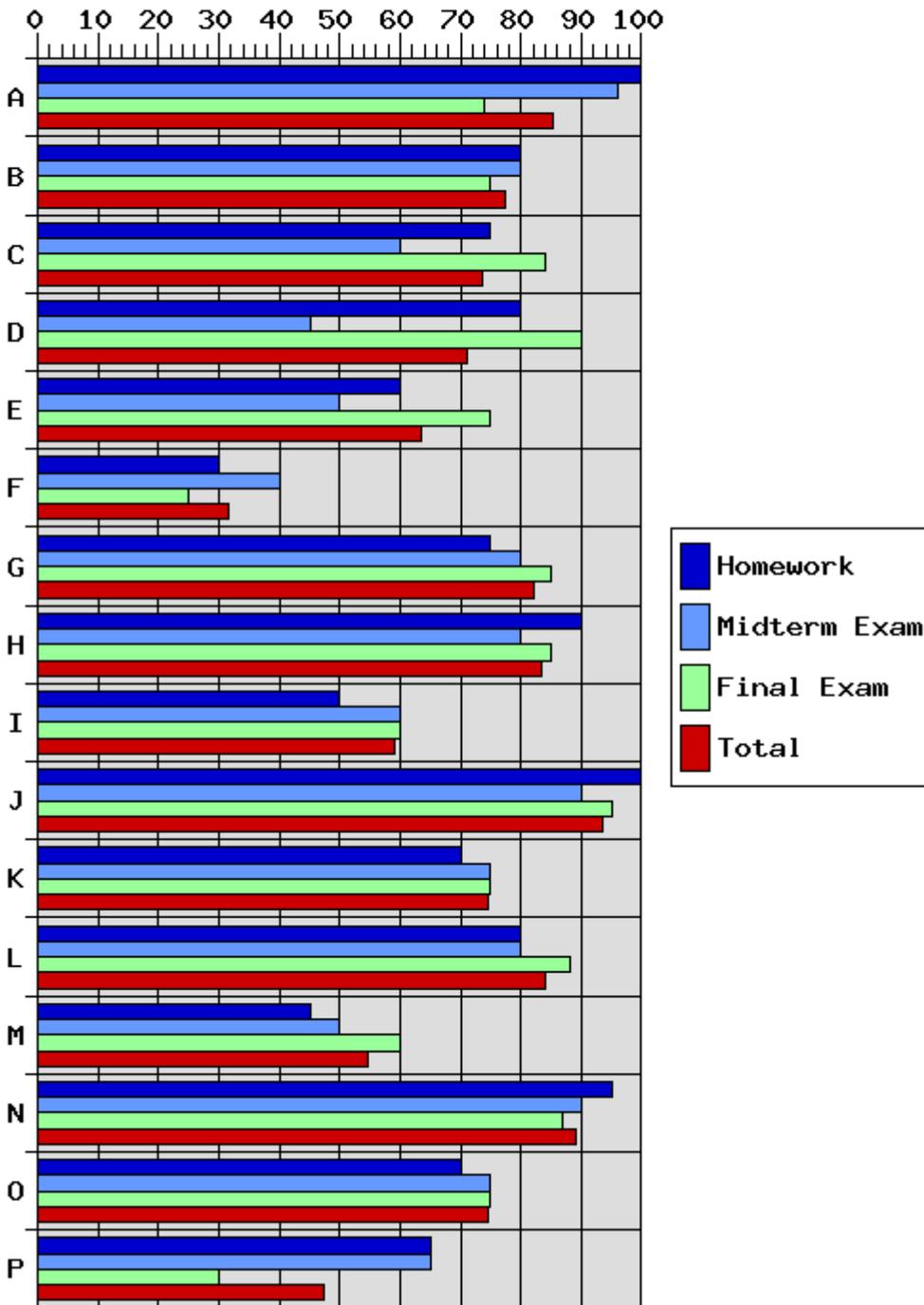


Fig. 5: Resulting multibar graphic

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 | =BARCART(D2:D13) | | | | |