

Gergely Daróczy

Unified plots

Contents

Options	3
Default options	3
Histogram	4
Base R plot	4
lattice	7
ggplot2	7
Barplot	7
Base R plot	7
lattice	8
ggplot2	10
Points	10
Base R plot	10
lattice	13
ggplot2	13
Grouped plot	13
Base R plot	13
lattice	13
ggplot2	13
Facets	13
Base R plot	13
lattice	18
ggplot2	18

Boxplot	18
Base R plot	18
lattice	19
ggplot2	19
Lines	19
Base R plot	19
lattice	21
ggplot2	21
Custom options	21
Histogram	23
Base R plot	23
lattice	24
ggplot2	24
Barplot	24
Base R plot	24
lattice	29
ggplot2	29
Points	29
Base R plot	29
lattice	31
ggplot2	31
Grouped plot	31
Base R plot	31
lattice	34
ggplot2	34
Facets	34
Base R plot	34
lattice	36
ggplot2	36
Boxplot	40

Base R plot	40
lattice	40
ggplot2	40
Lines	40
Base R plot	40
lattice	40
ggplot2	40

This document demonstrates the features of unifying plots in **pander**. First, if you do not want to deal with styling each of your images, just activate it: `evalsOptions('graph.unify', TRUE)`.

Note: please install **lattice** and **ggplot2** on your computer prior to trying to run all examples of this document.

Options

There are a bunch of options you might want to check out, these are:

- `graph.nomargin`
- `graph.fontfamily`
- `graph.fontcolor`
- `graph.fontsize`
- `graph.grid`
- `graph.grid.minor`
- `graph.grid.color`
- `graph.grid.lty`
- `graph.bboxes`
- `graph.legend.position`
- `graph.background`
- `graph.panel.background`
- `graph.colors`
- `graph.color.rnd`
- `graph.axis.angle`
- `graph.symbol`

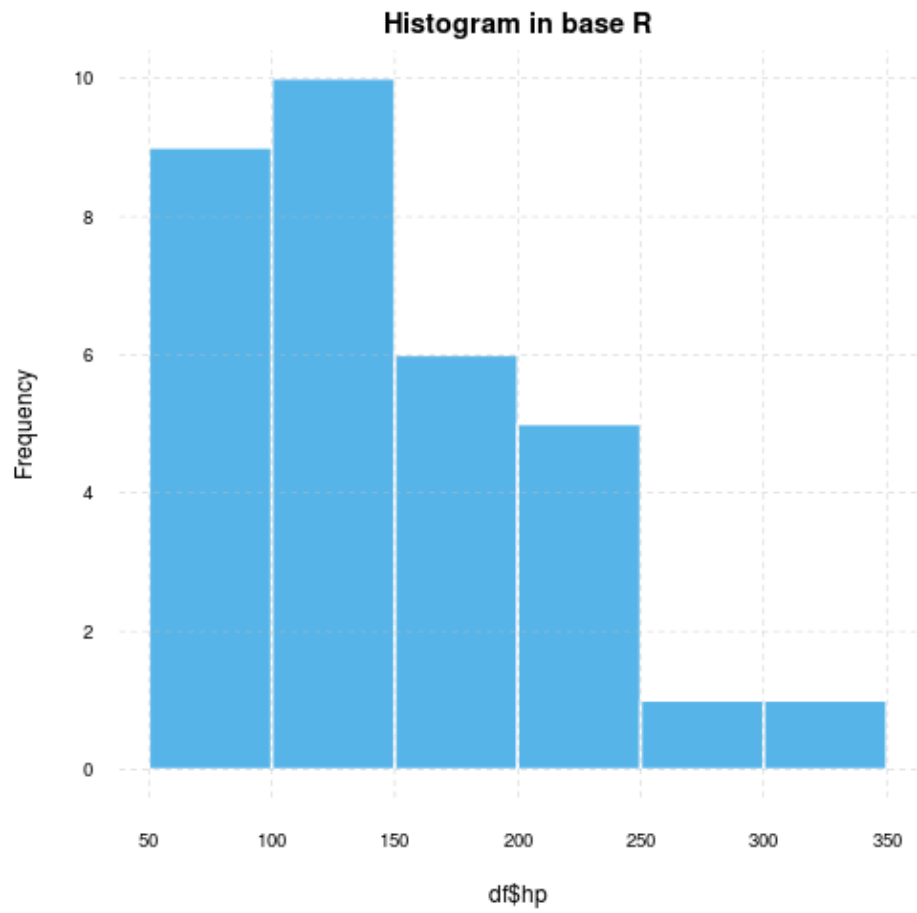
Find more details on **pander**'s homepage.

Default options

Not touching the above ones, let us check out how different plots look like by calling **base** R graphing function, **lattice** or **ggplot2**!

Histogram

Base R plot



WARNING¹

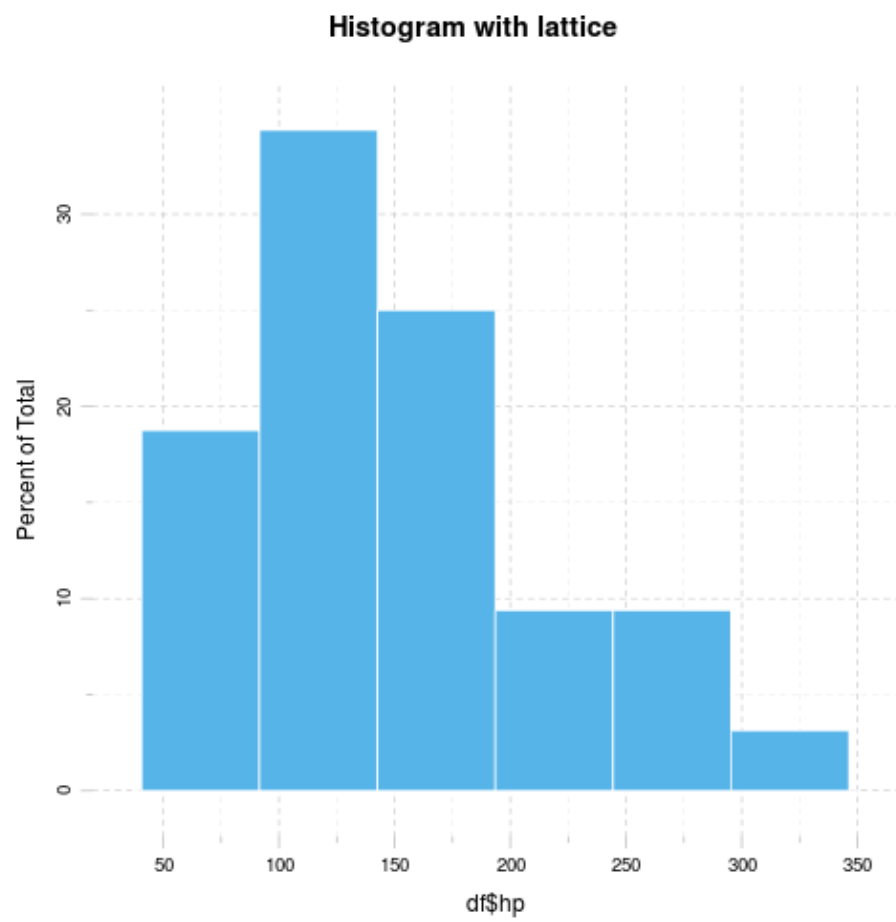


Figure 1:

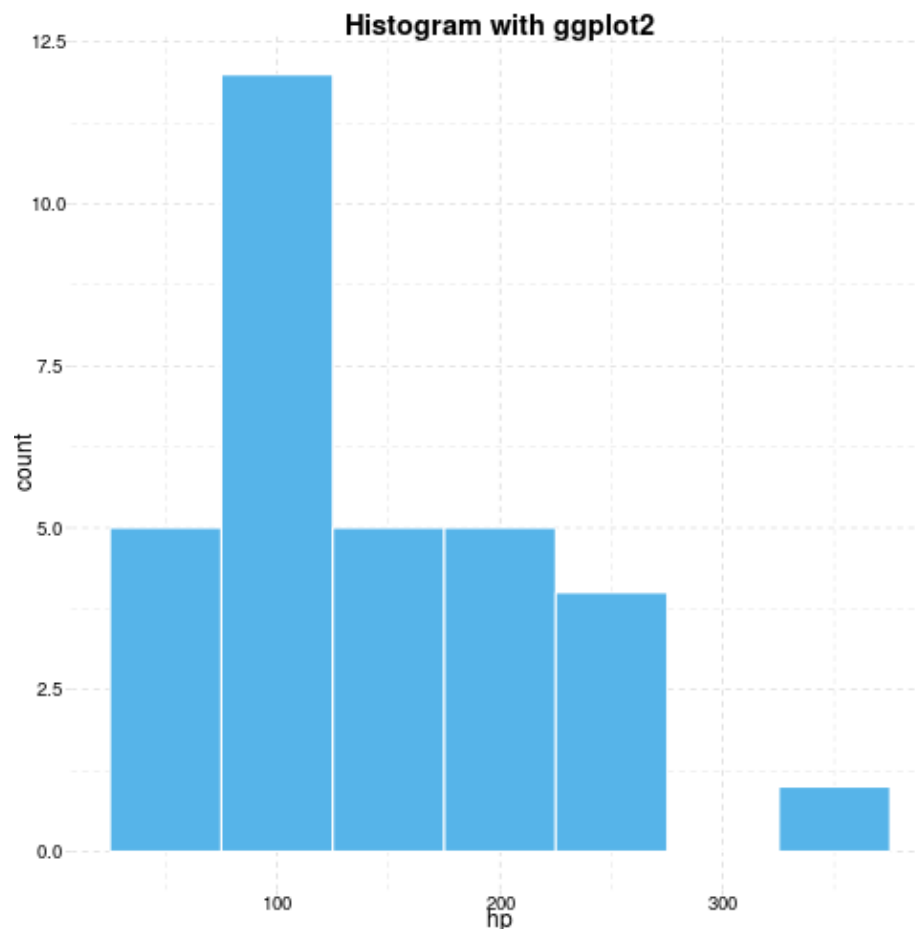


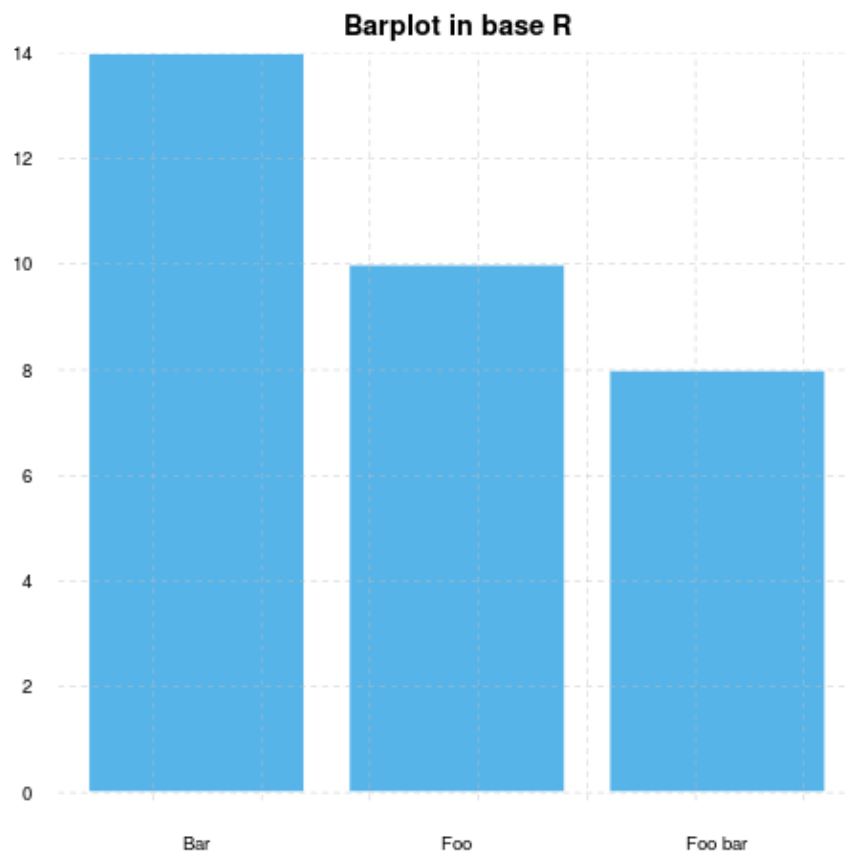
Figure 2:

`lattice`

`ggplot2`

Barplot

Base R plot



WARNING²

¹Applying default formatting to image is somehow compromised (the result could differ from what you specified in `panderOptions`). Hints: printing `lattice/ggplot2` is not needed and tweaking `base` plots with `par` might have some side-effects!

²Applying default formatting to image is somehow compromised (the result could differ from what you specified in `panderOptions`). Hints: printing `lattice/ggplot2` is not needed and tweaking `base` plots with `par` might have some side-effects!

lattice

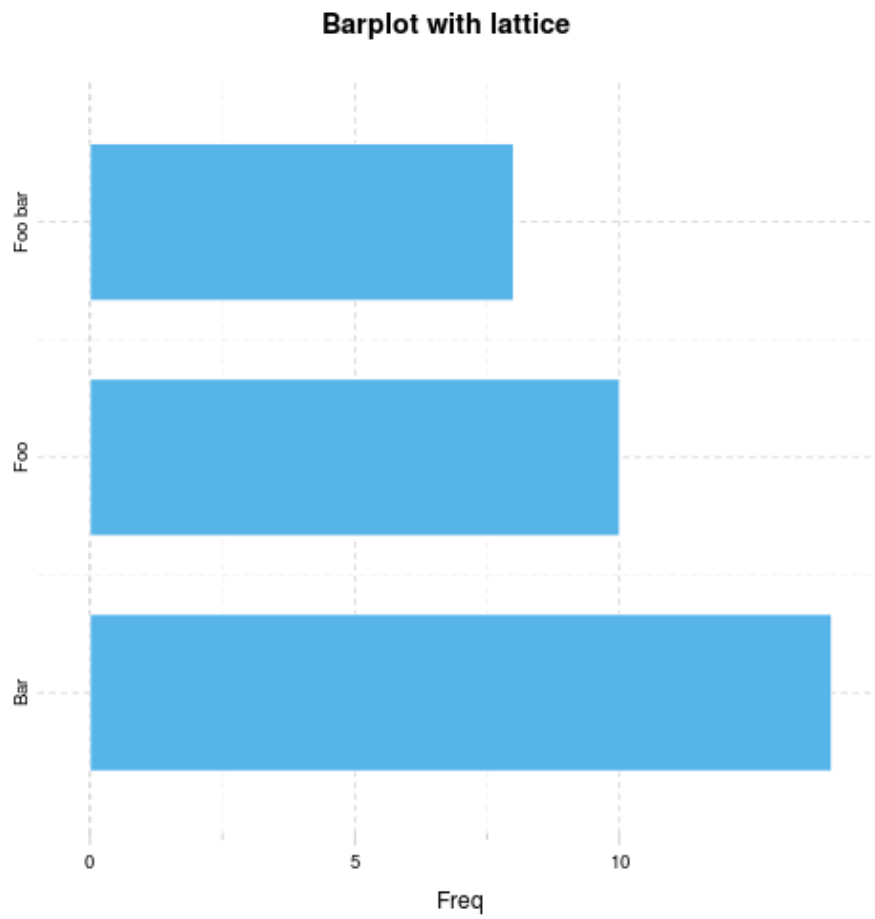


Figure 3:

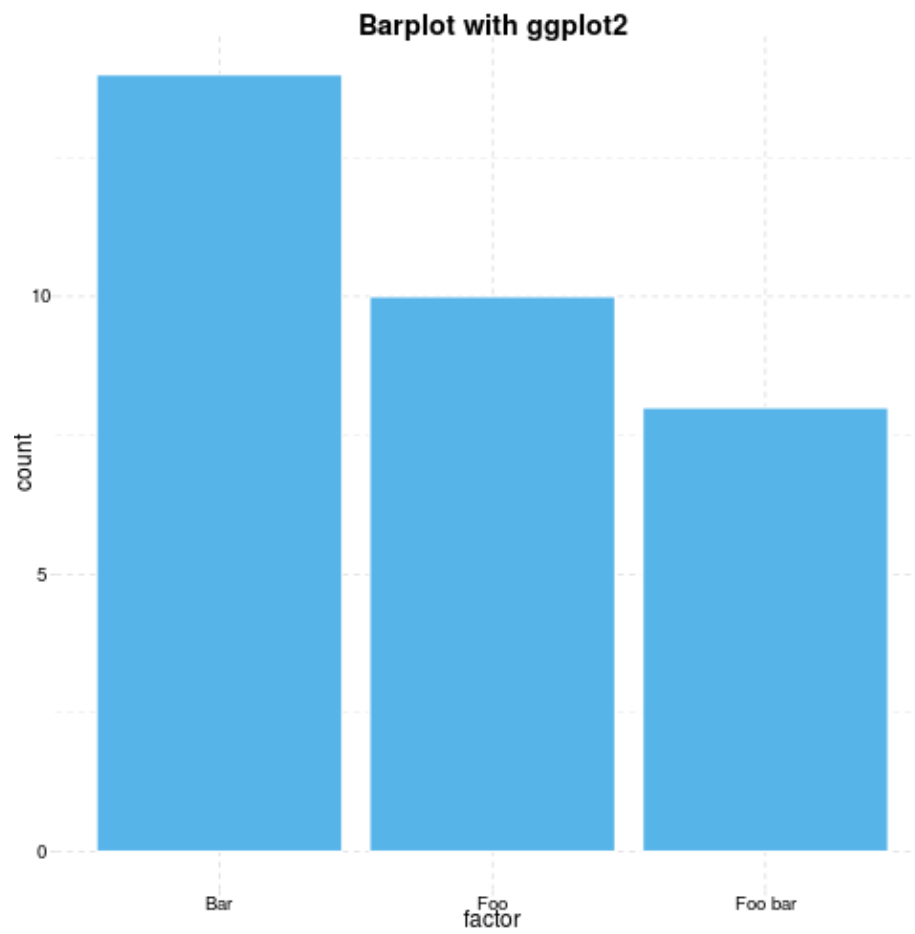
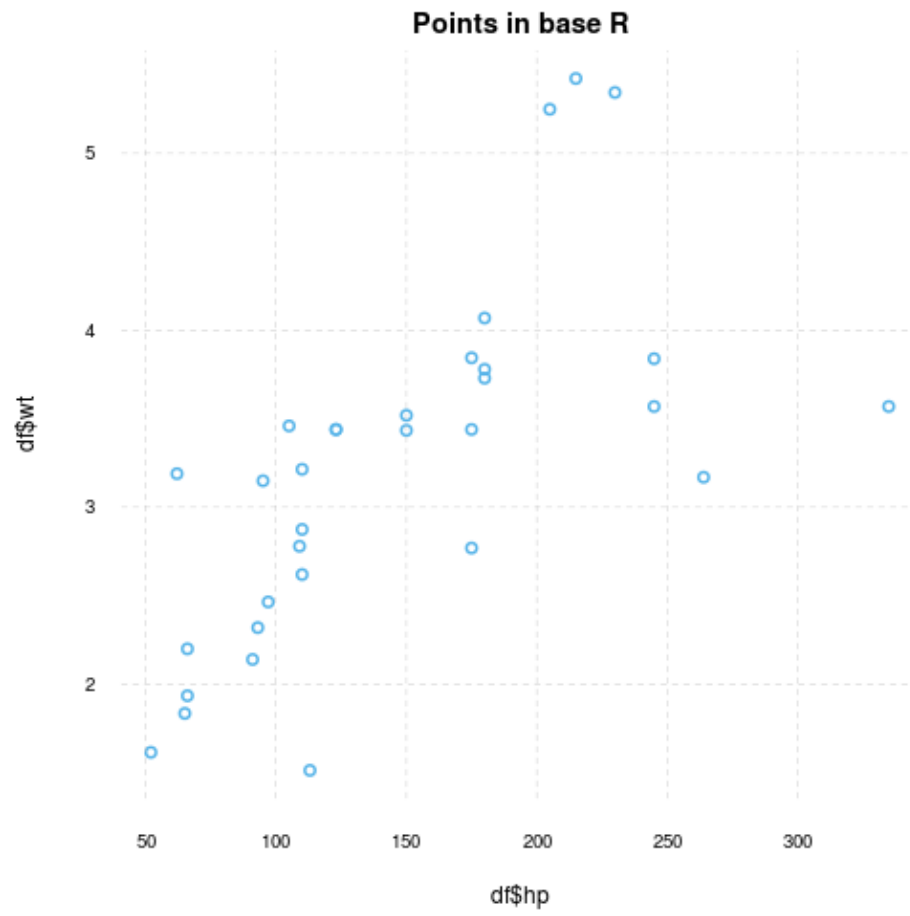


Figure 4:

ggplot2

Points

Base R plot



WARNING³

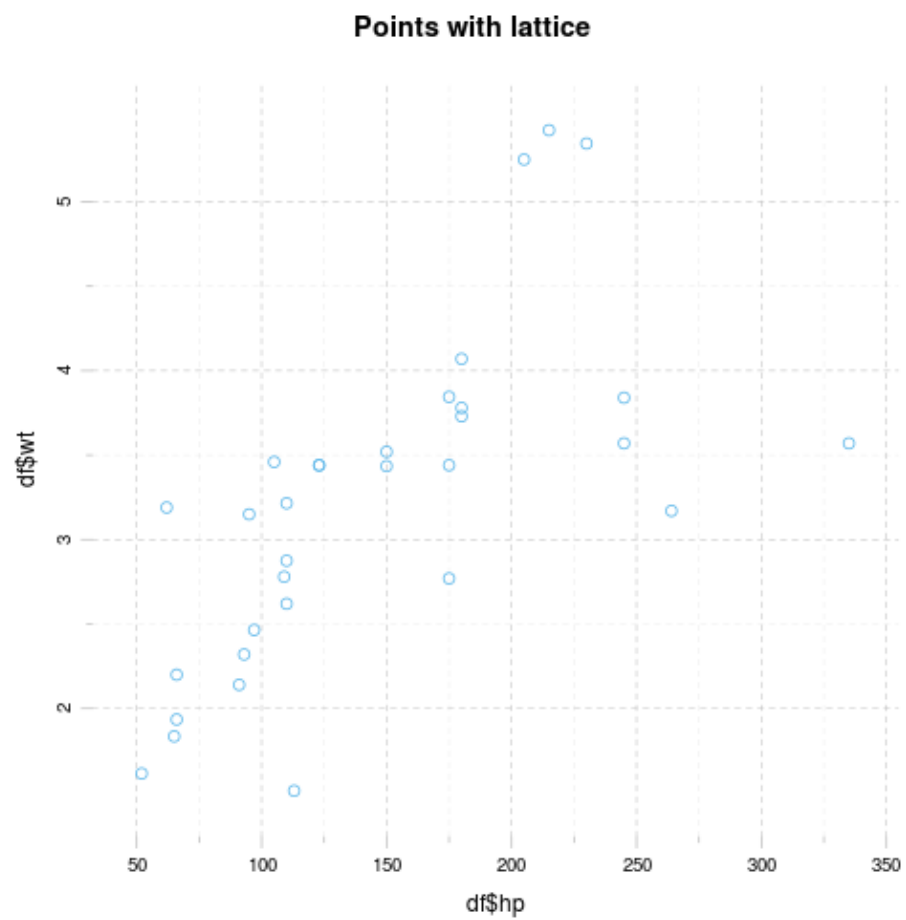


Figure 5:

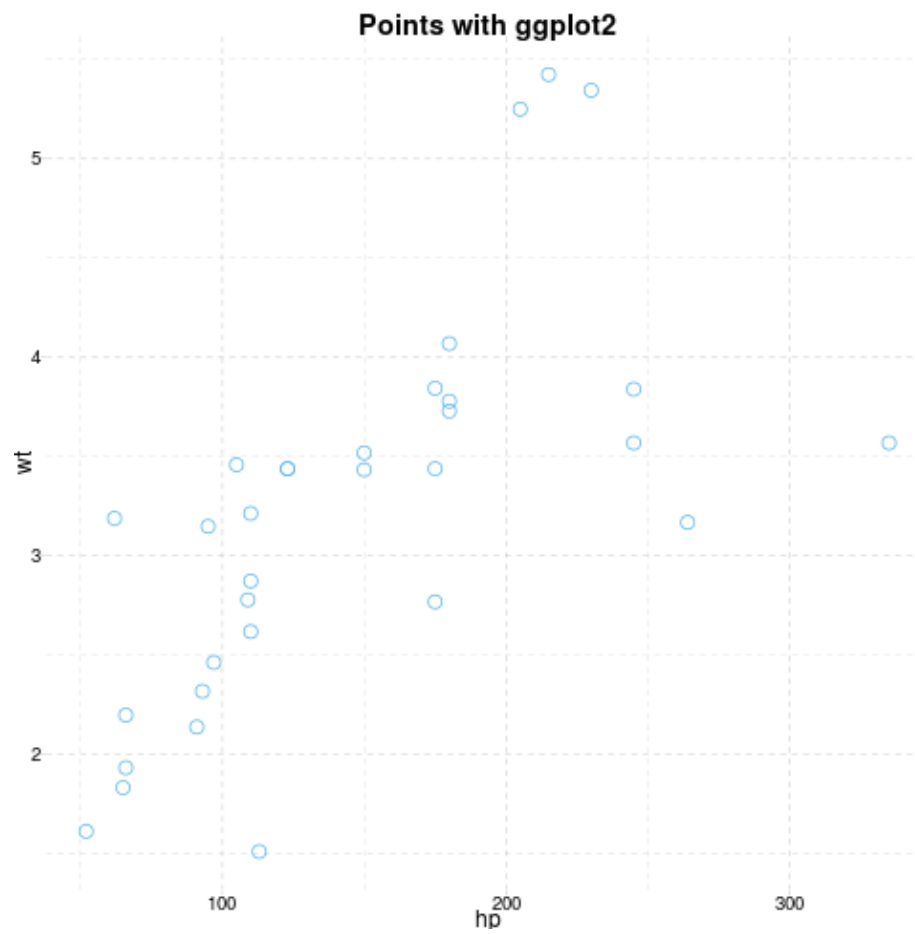


Figure 6:

lattice

ggplot2

Grouped plot

Base R plot

I have no idea how to do that besides manually adding `points`.

lattice

ggplot2

Facets

Base R plot

I have no idea how to do that besides `par(mfrow=c(foo, bar))`.

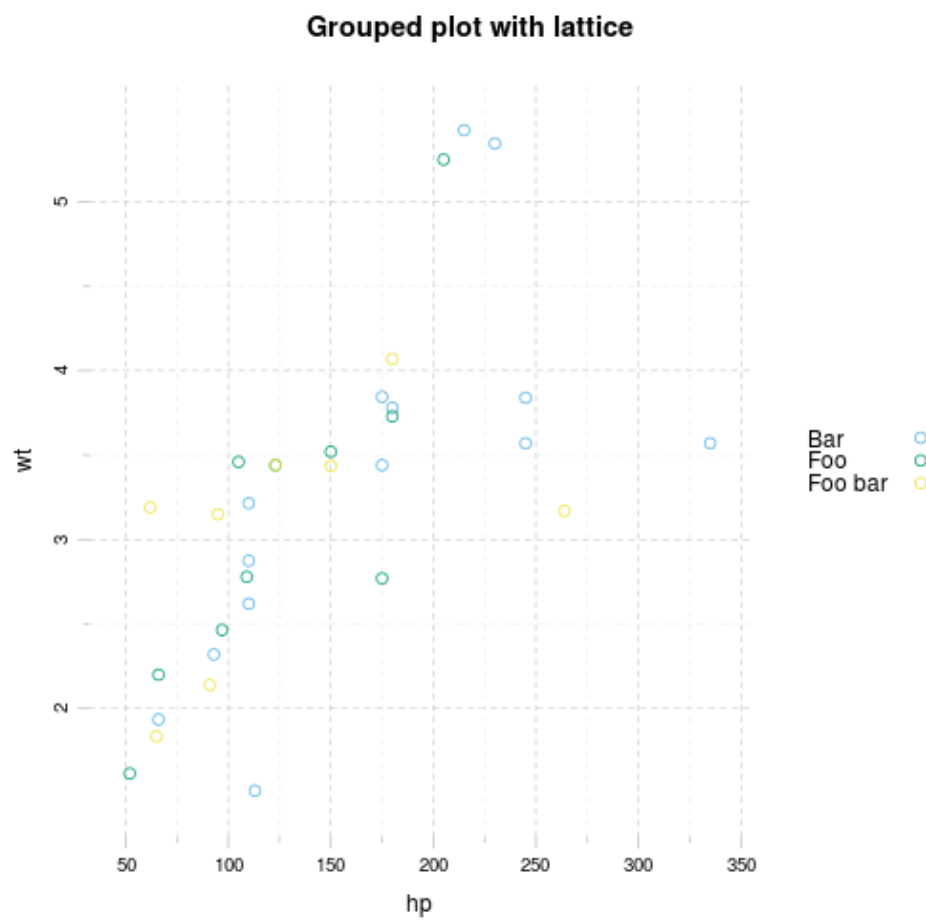


Figure 7:

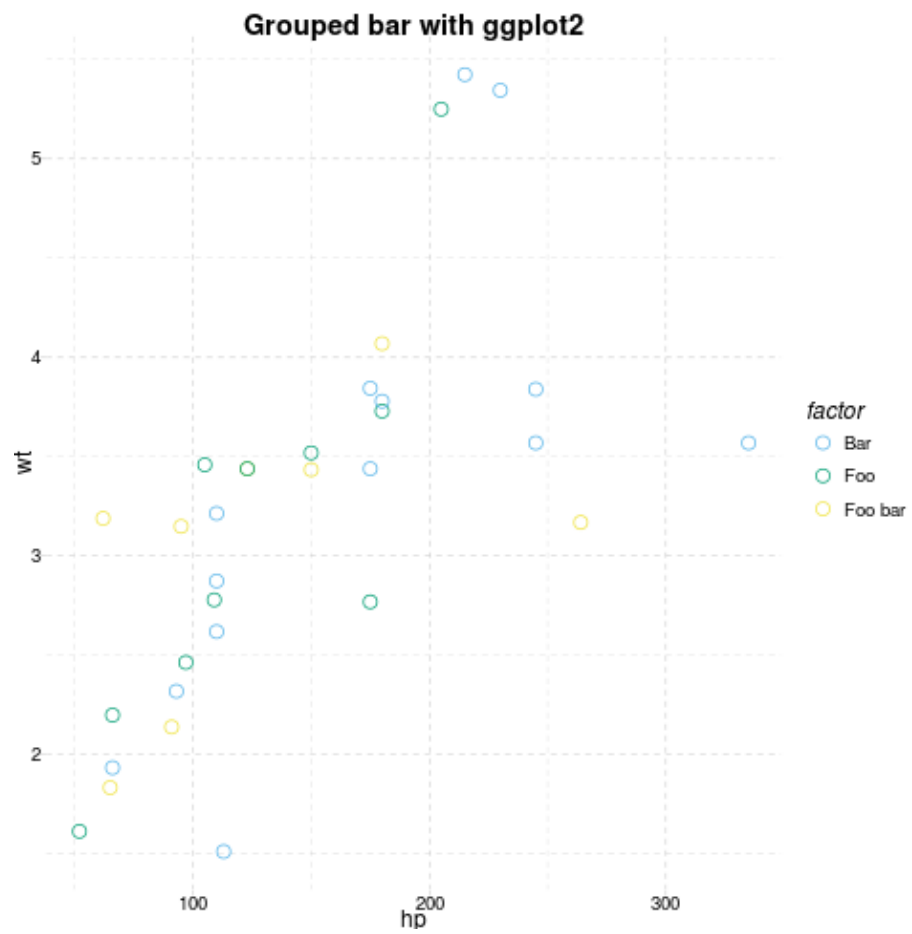


Figure 8:

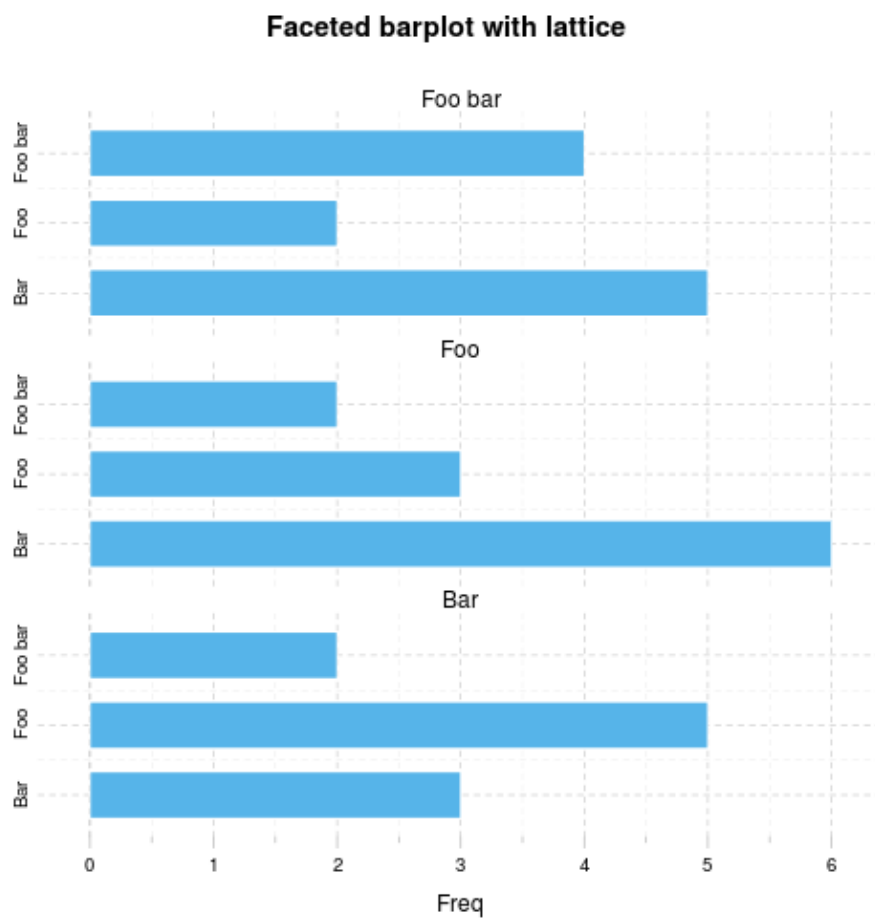


Figure 9:

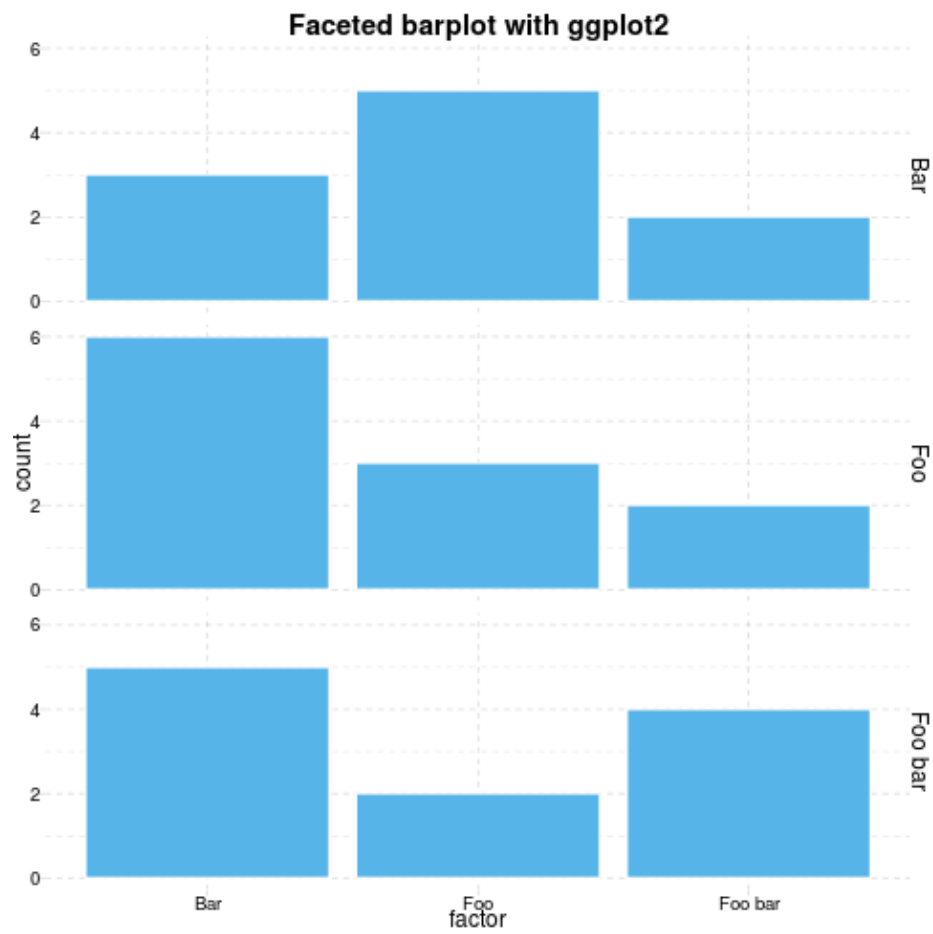


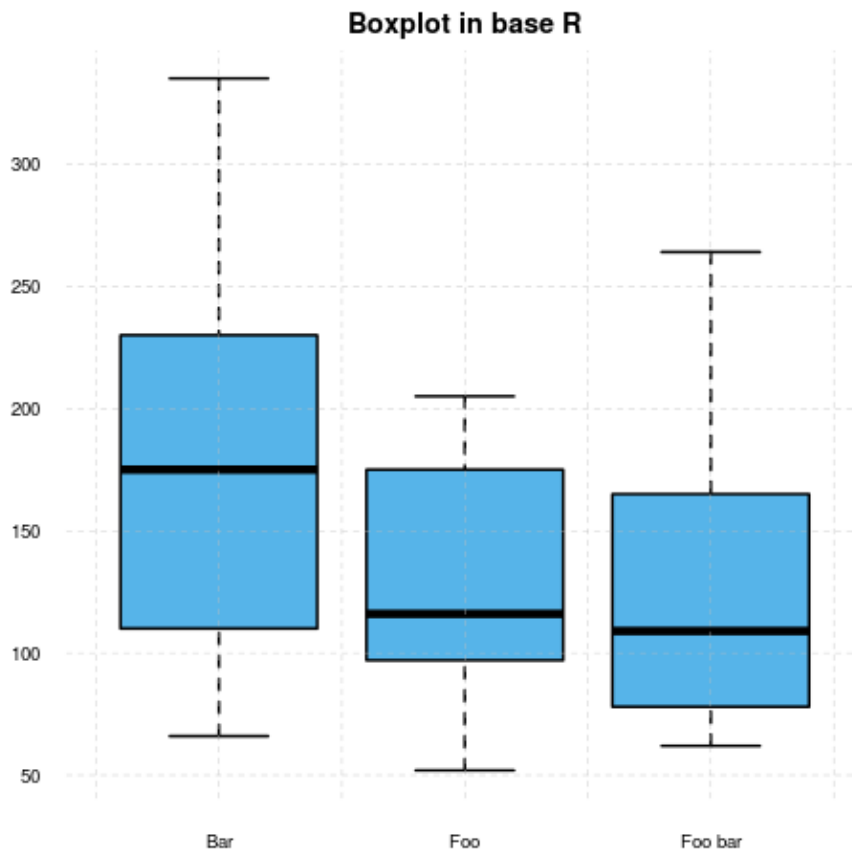
Figure 10:

`lattice`

`ggplot2`

Boxplot

Base R plot



WARNING⁴

³Applying default formatting to image is somehow compromised (the result could differ from what you specified in `panderOptions`). Hints: printing `lattice/ggplot2` is not needed and tweaking `base` plots with `par` might have some side-effects!

⁴Applying default formatting to image is somehow compromised (the result could differ from what you specified in `panderOptions`). Hints: printing `lattice/ggplot2` is not needed and tweaking `base` plots with `par` might have some side-effects!

lattice

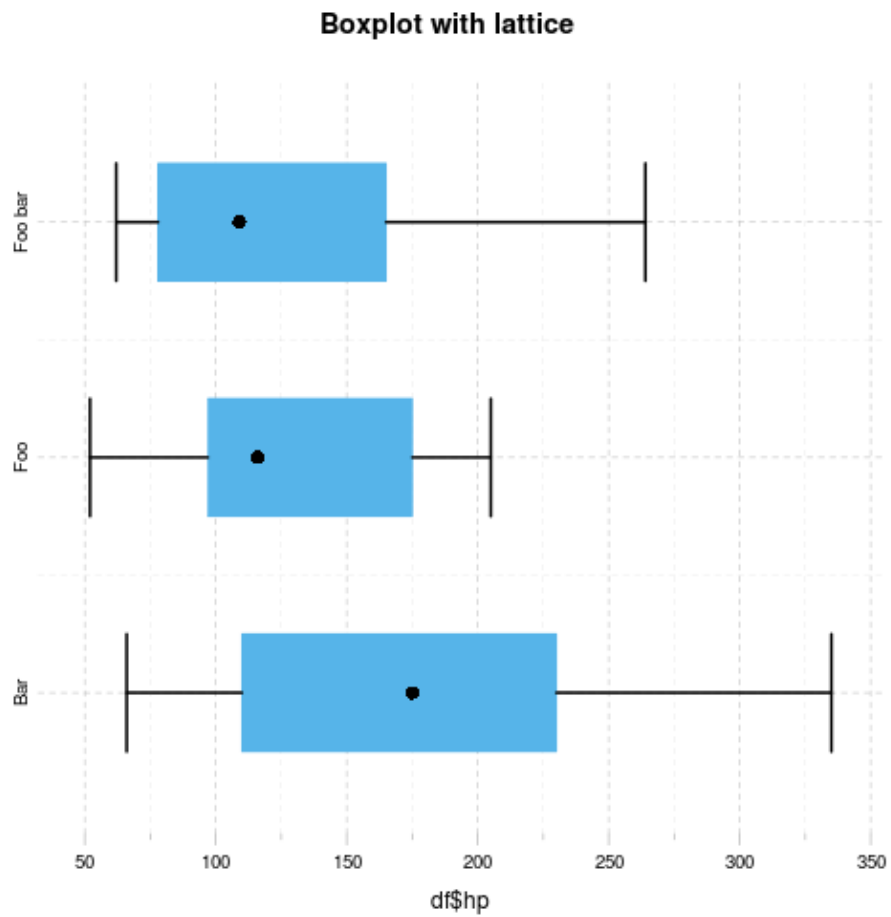


Figure 11:

ggplot2

Lines

Base R plot

ERROR⁵

⁵:1:1: unexpected '/' 1: / ^

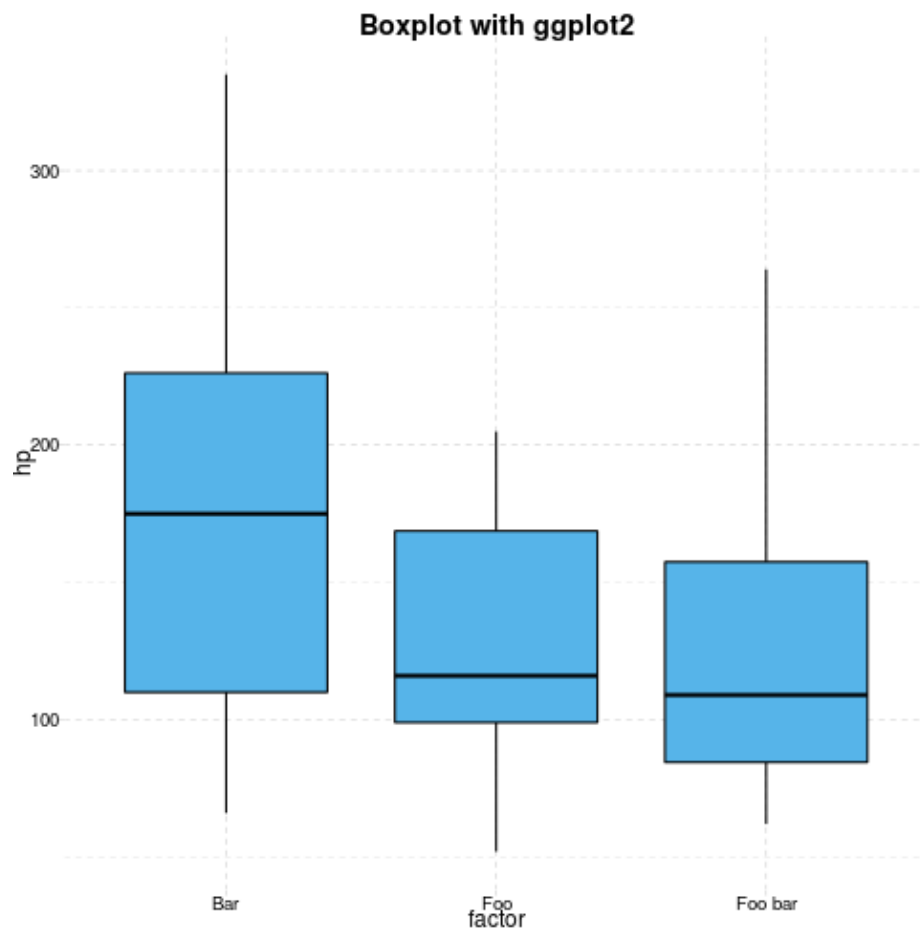


Figure 12:

lattice

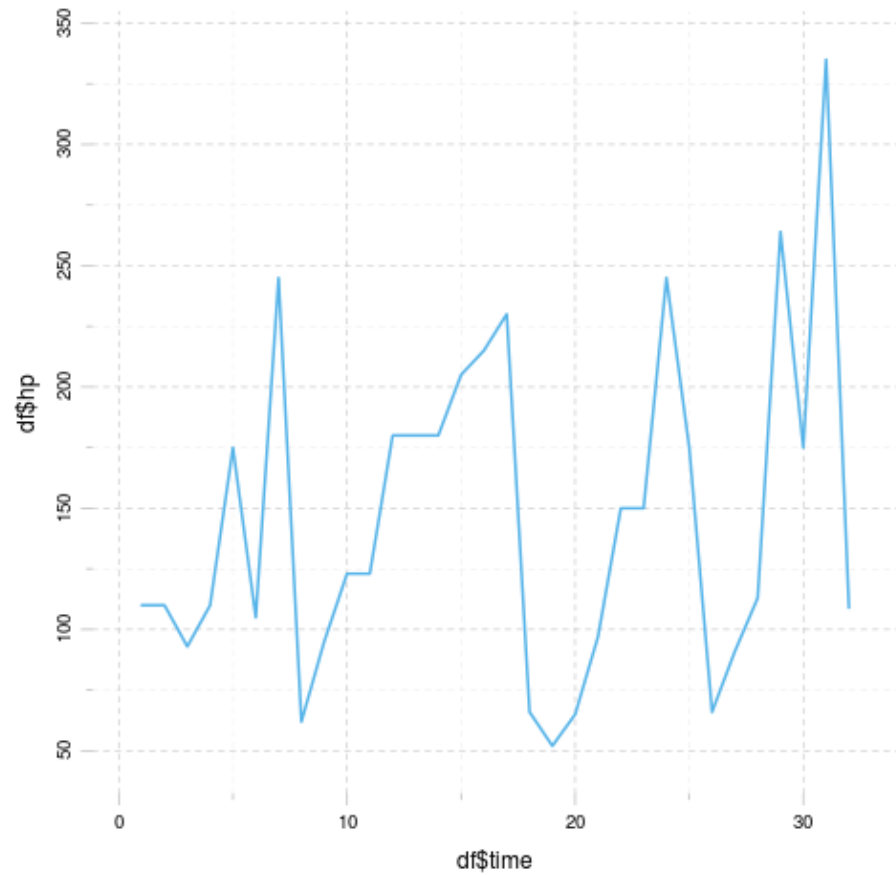


Figure 13:

ggplot2

Custom options

Below you can find some images generated by the exact same commands but with some modified `panderOptions`:

```
panderOptions('graph.fontfamily', "Comic Sans MS")
panderOptions('graph.fontsize', 18)
```

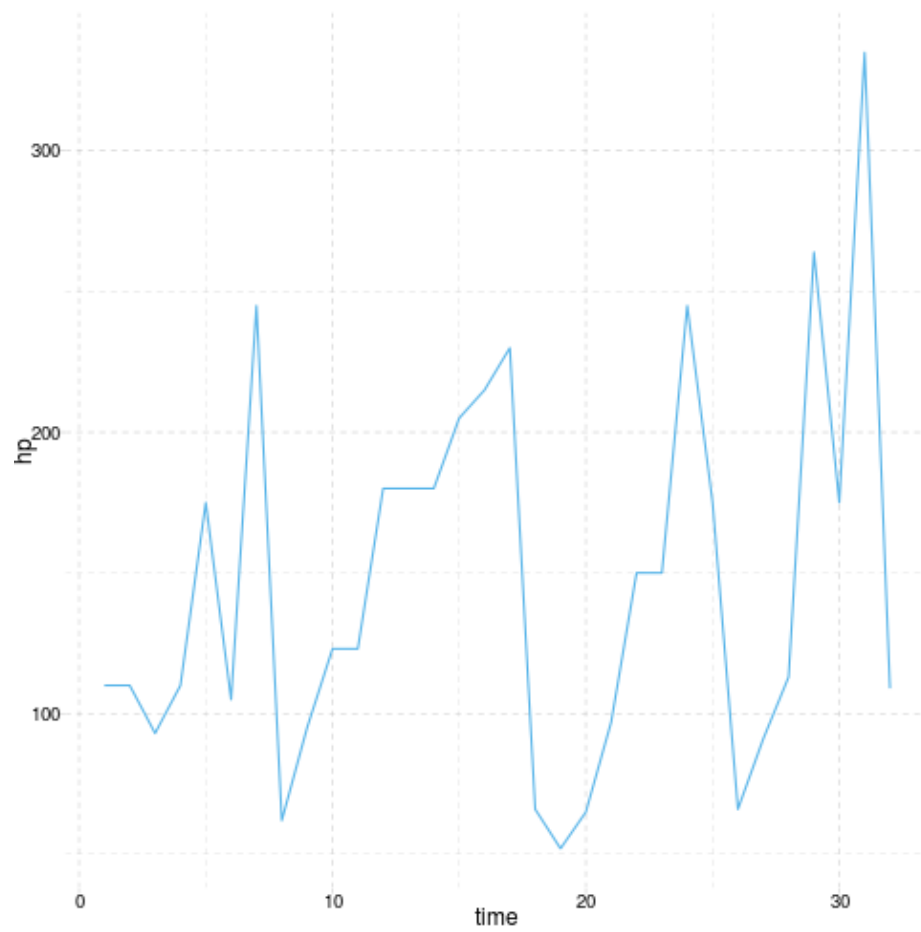


Figure 14:

```

panderOptions('graph.fontcolor', 'blue')
panderOptions('graph.grid.color', 'blue')
panderOptions('graph.axis.angle', 3)
panderOptions('graph.bboxes', T)
panderOptions('graph.legend.position', 'top')
panderOptions('graph.colors', rainbow(5))
panderOptions('graph.grid', FALSE)
panderOptions('graph.symbol', 22)

```

Histogram

Base R plot

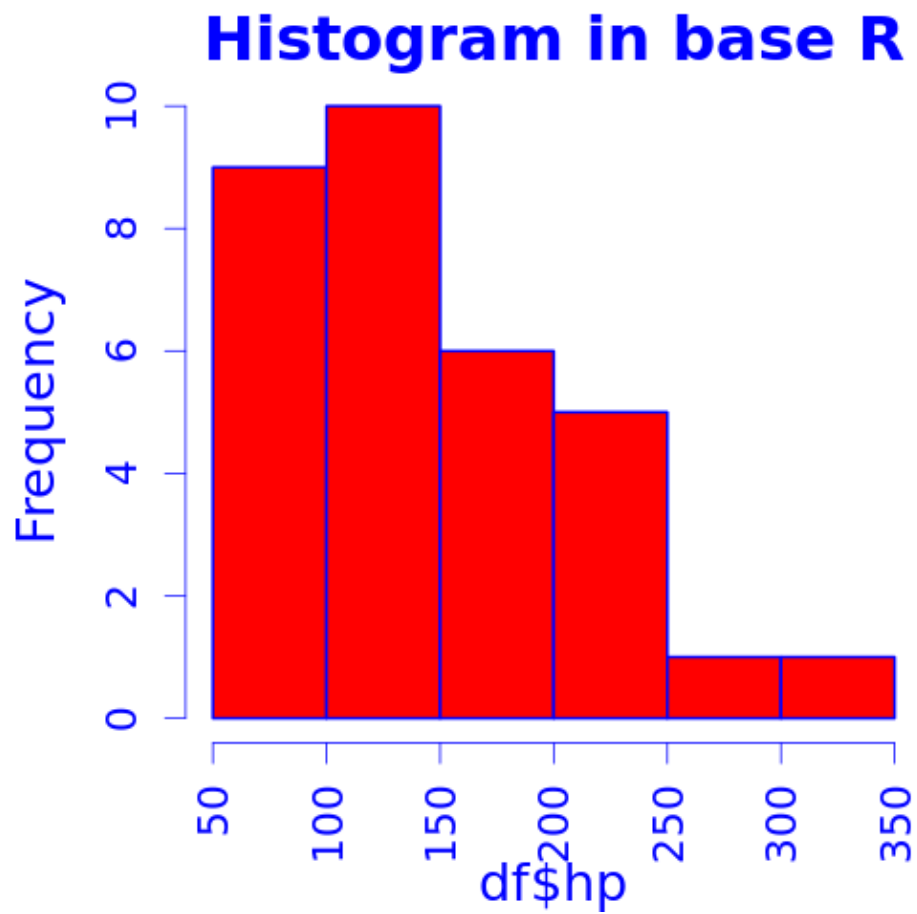


Figure 15:

`lattice`

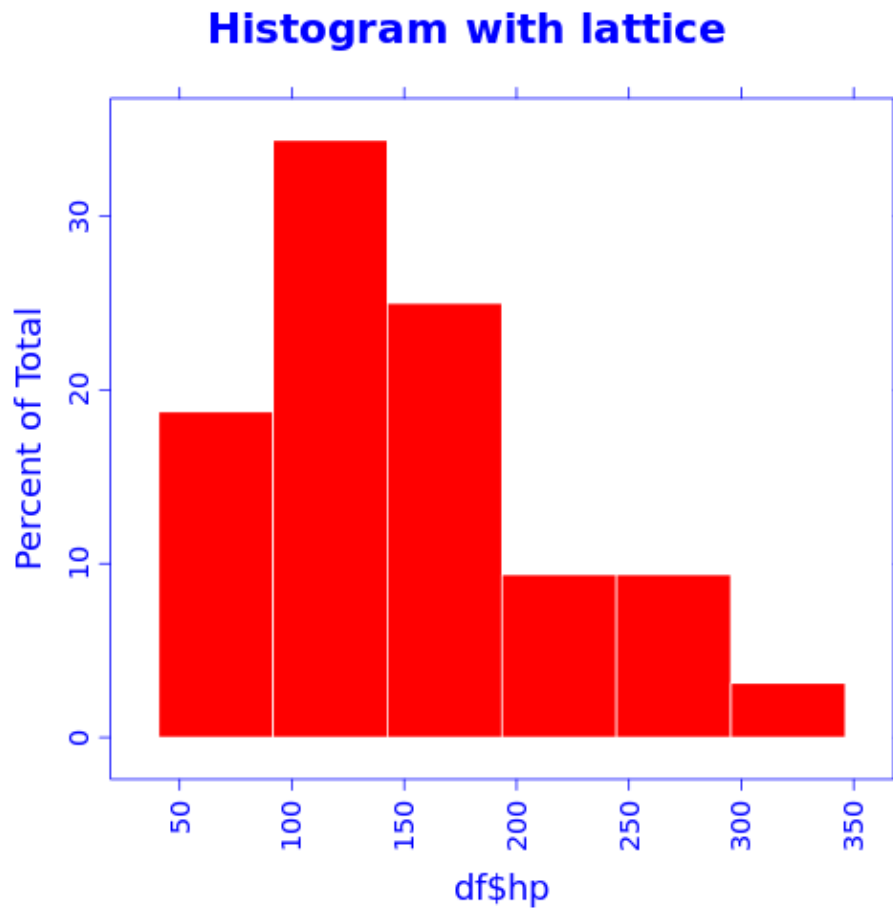


Figure 16:

`ggplot2`

Barplot

Base R plot

Yeah, the “Foo bar” label is cropped. We need a custom `mar` option here:

But wait, we lost the color! Right: unfortunately coloring base R plots is really hackish, `pander` is adding the `col` attribute to the calls. If you start to tweak `par` in a chunk, you should prepare to some unwanted side-effects. Solution:

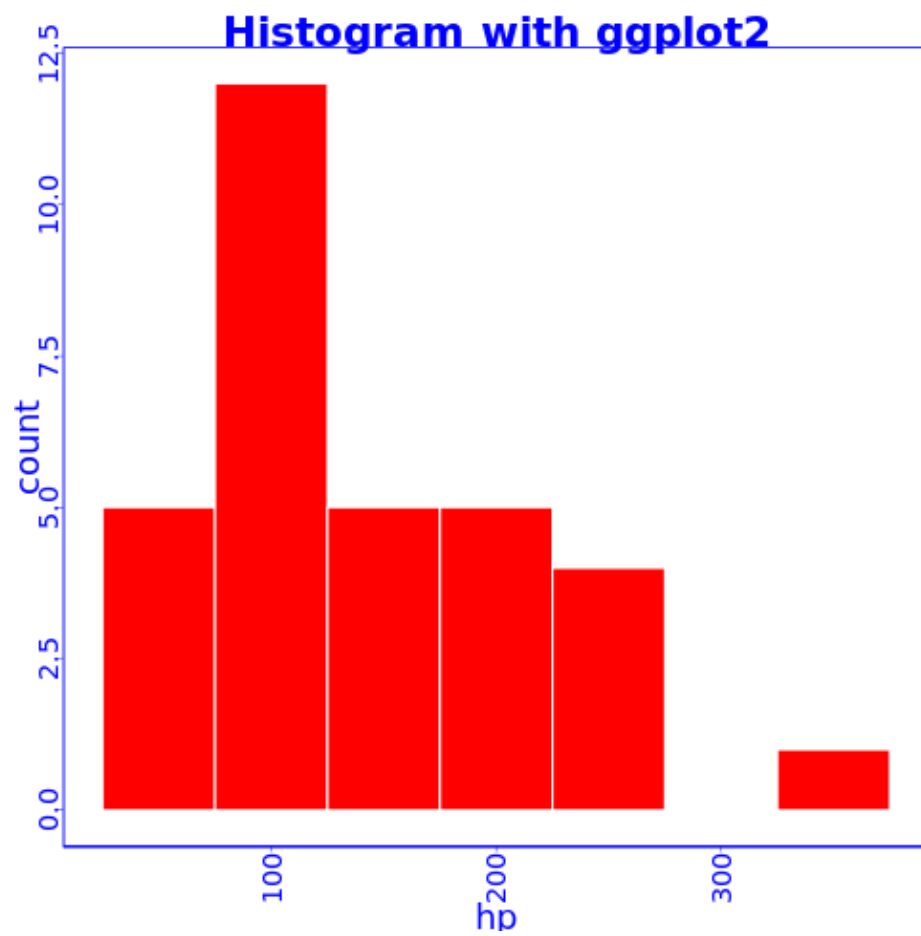


Figure 17:

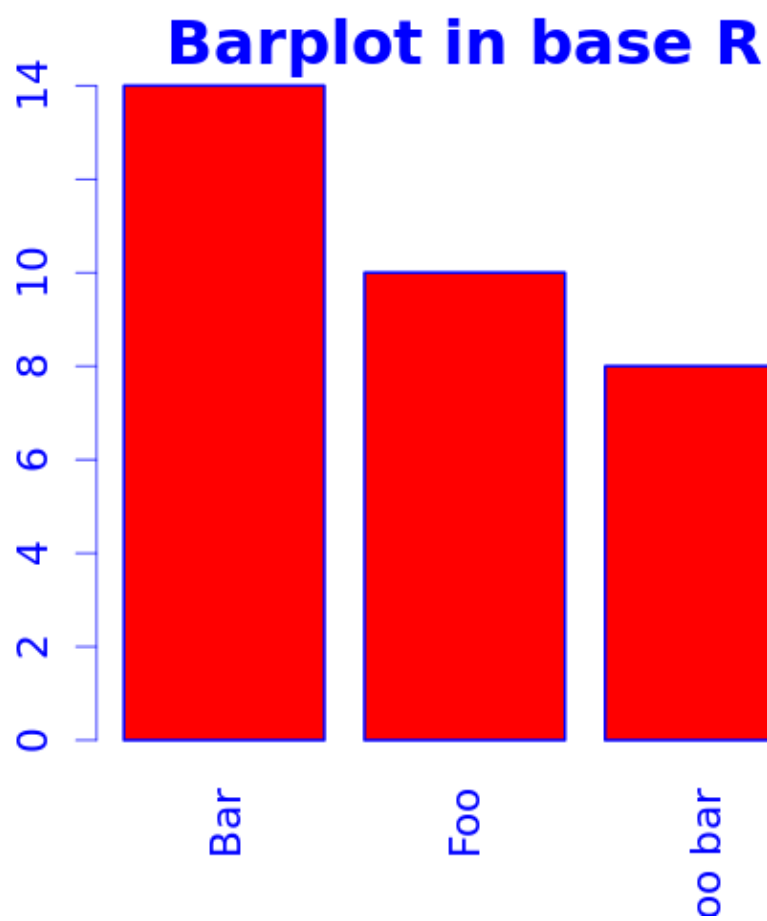


Figure 18:

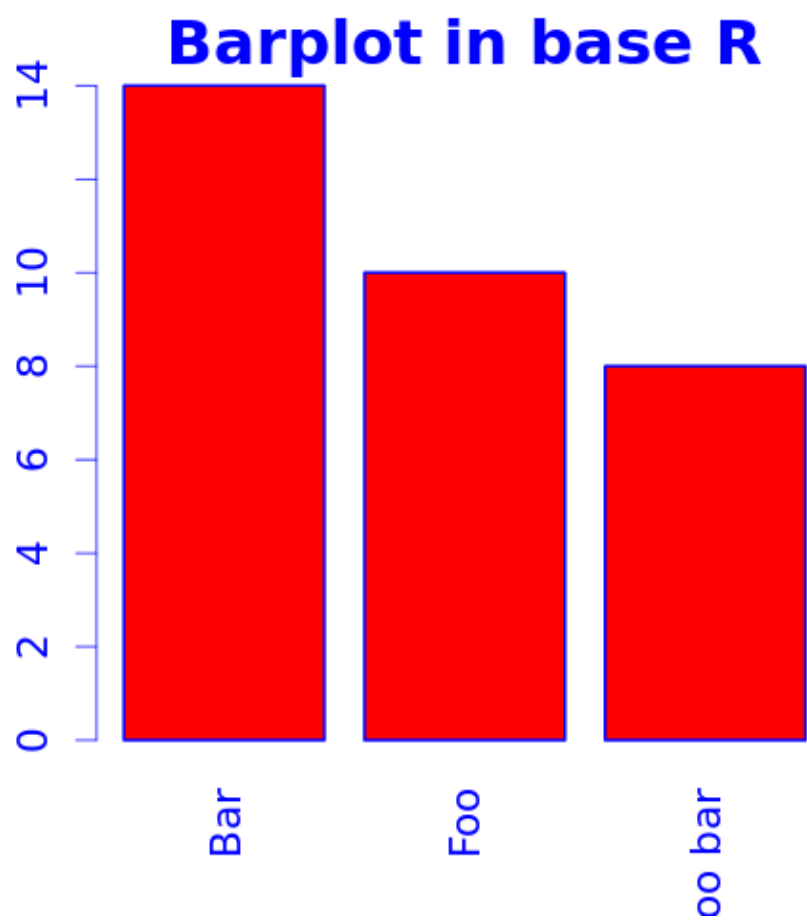


Figure 19:

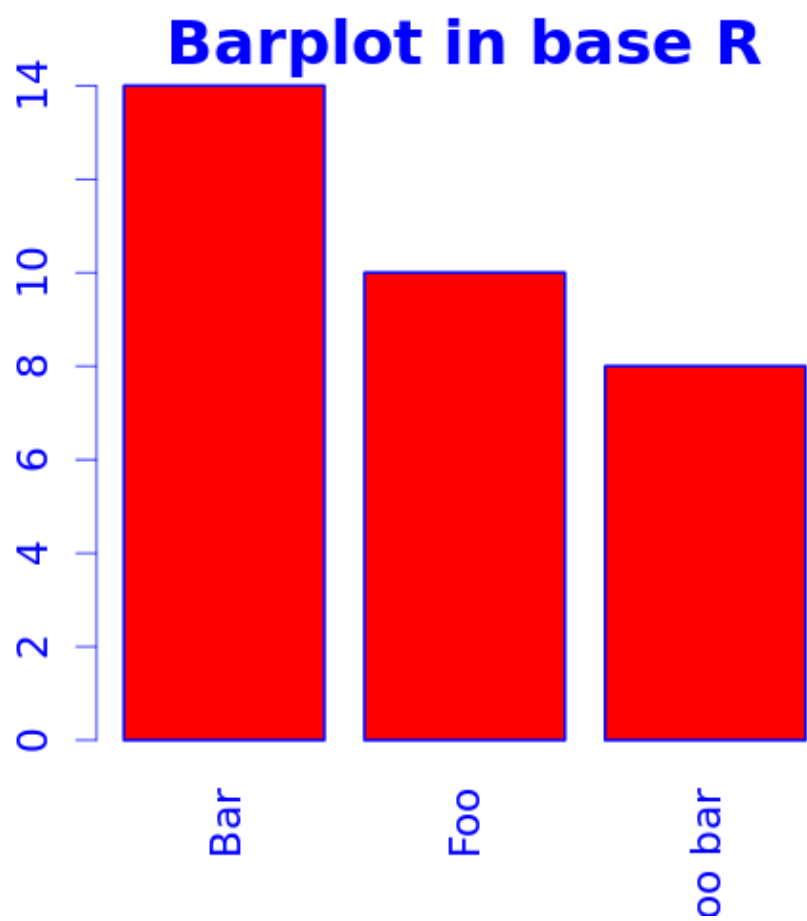


Figure 20:

lattice

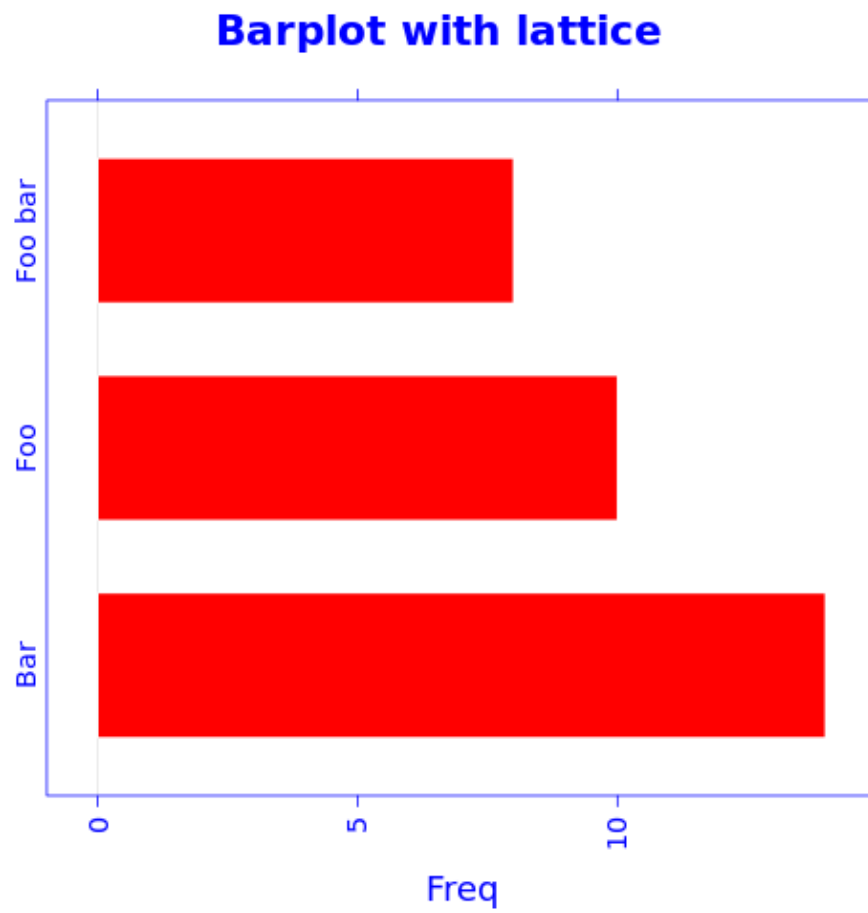


Figure 21:

ggplot2

Points

Base R plot

ERROR⁶

⁶:1:1: unexpected '/' 1: / ^

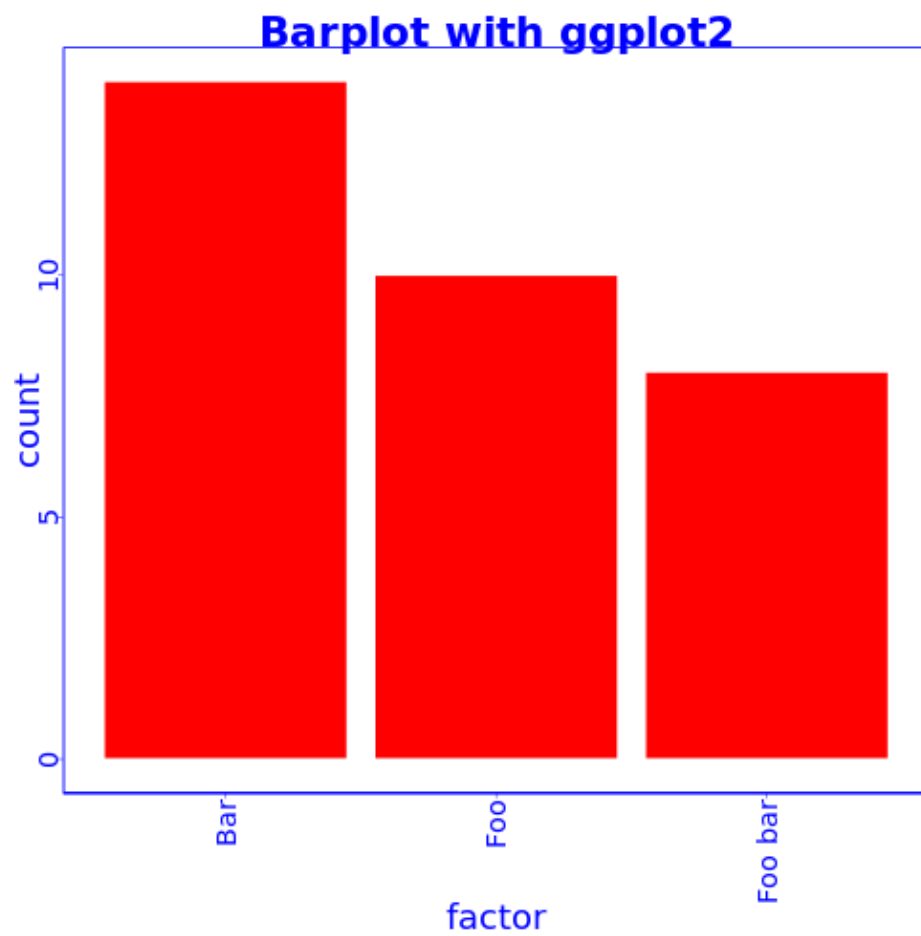


Figure 22:

lattice

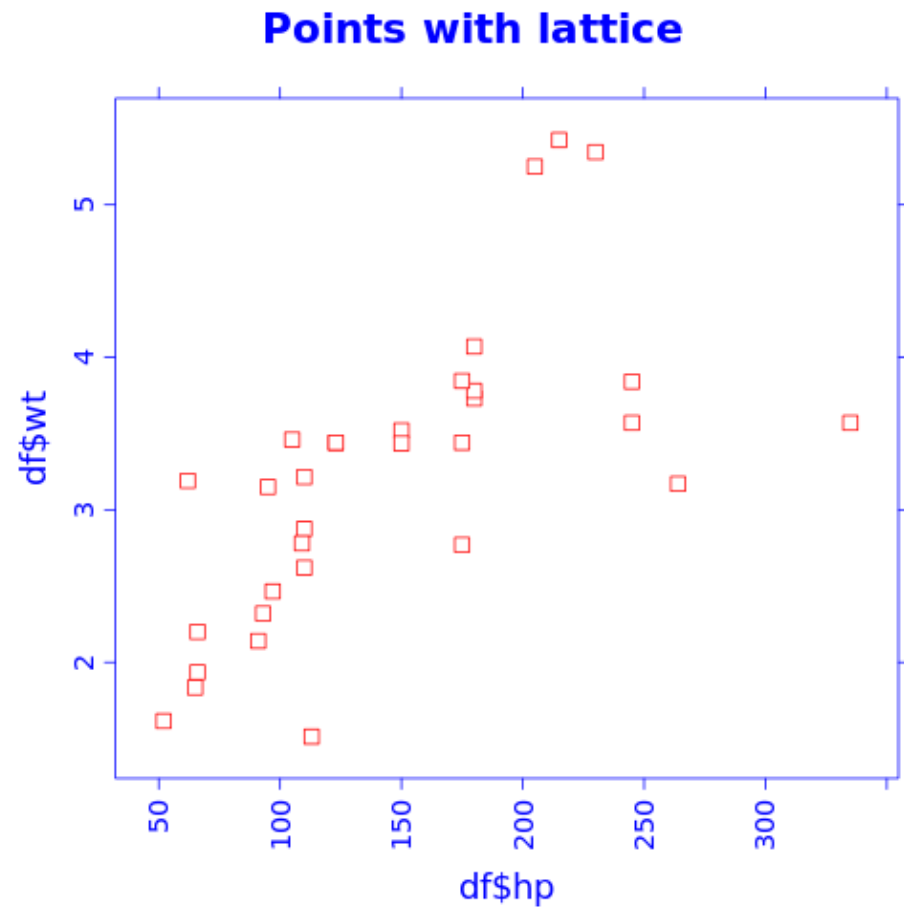


Figure 23:

ggplot2

Grouped plot

Base R plot

I have no idea how to do that besides manually adding `points`.

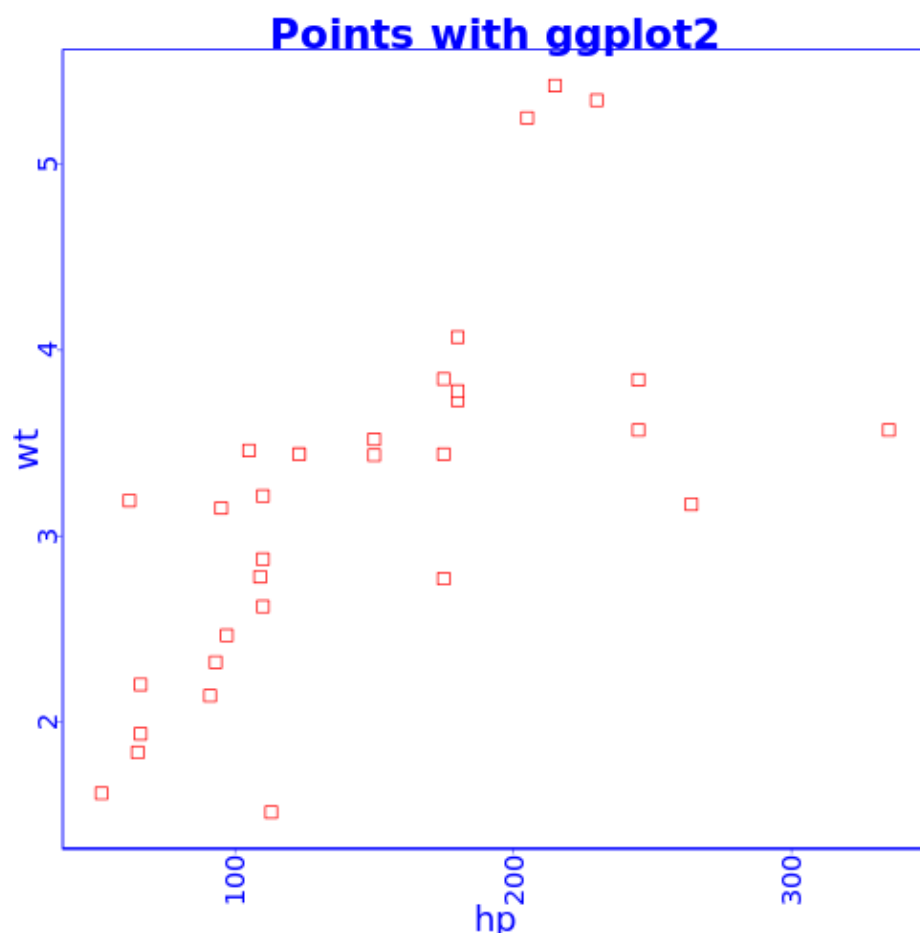


Figure 24:

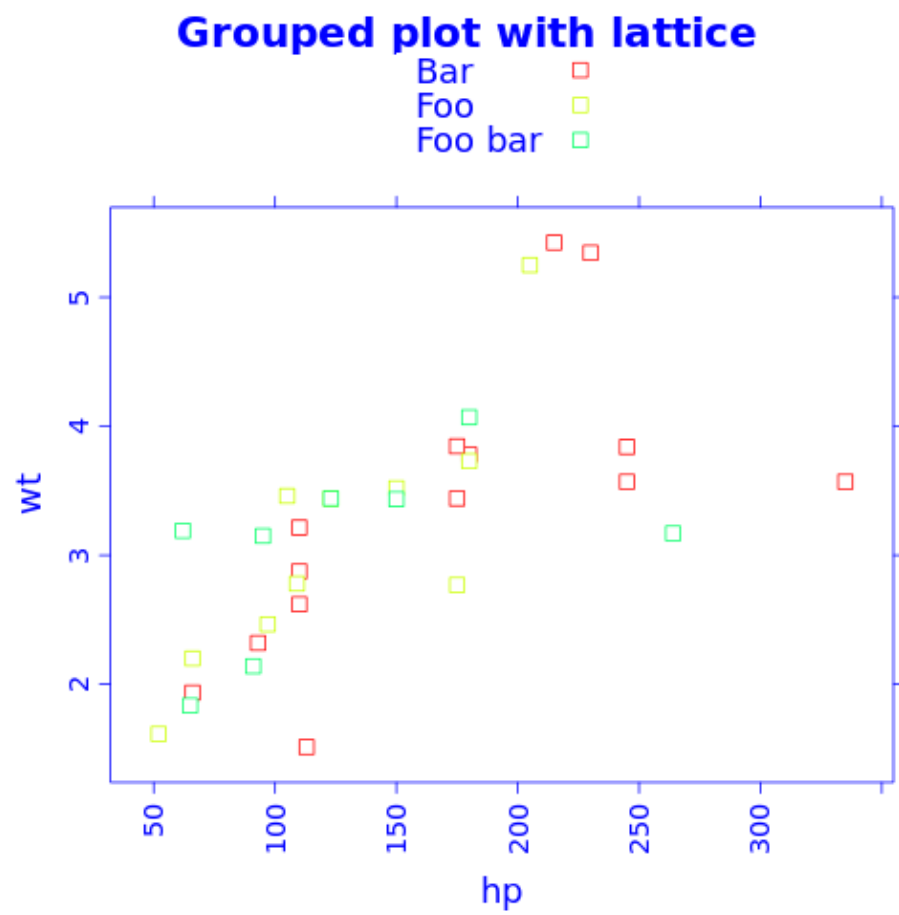
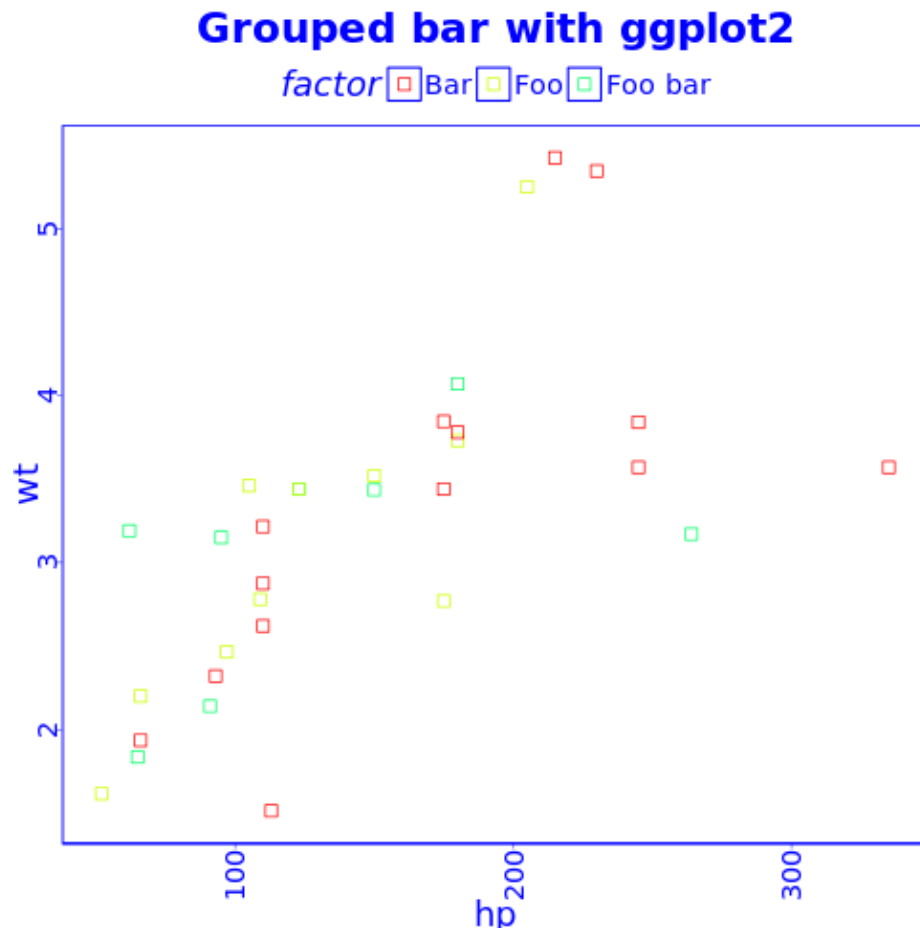


Figure 25:

lattice

ggplot2



Faceted barplot with lattice

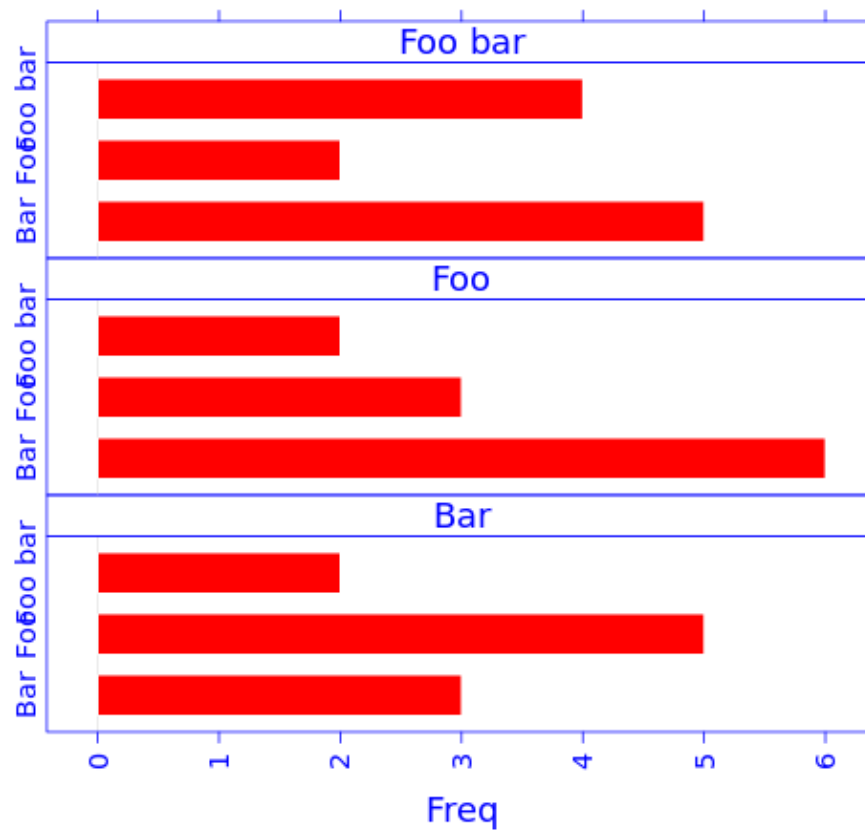


Figure 27:

lattice

ggplot2

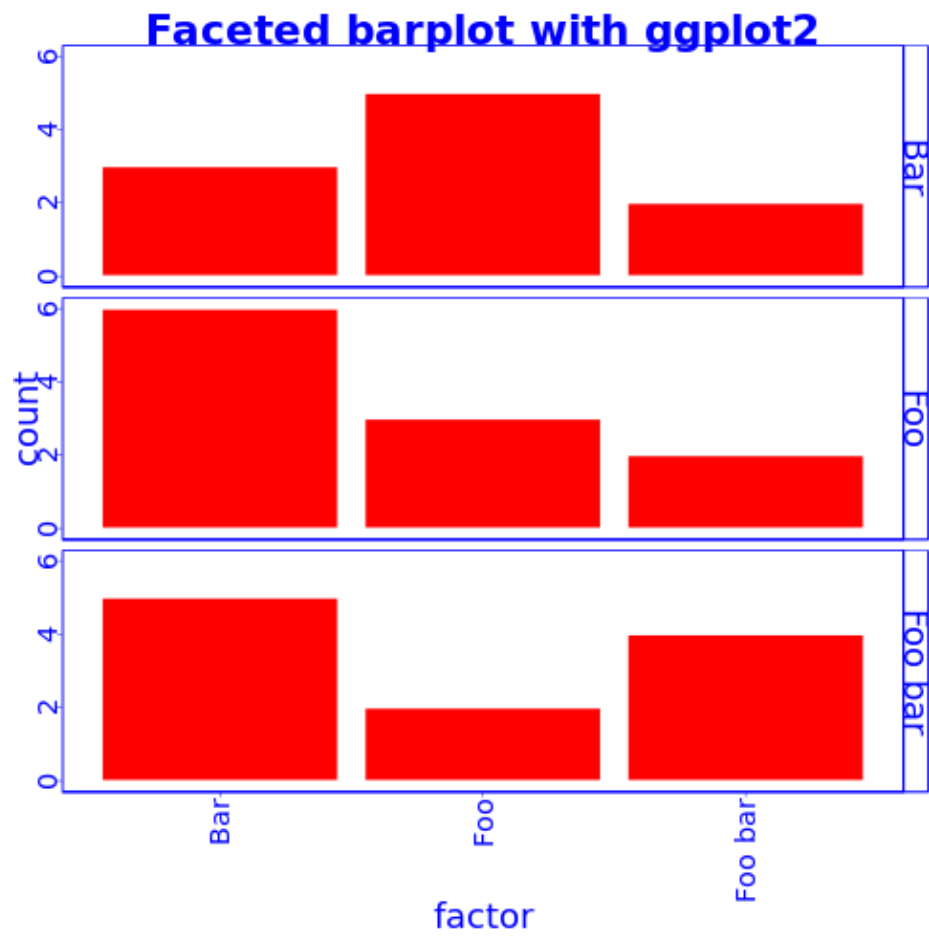


Figure 28:

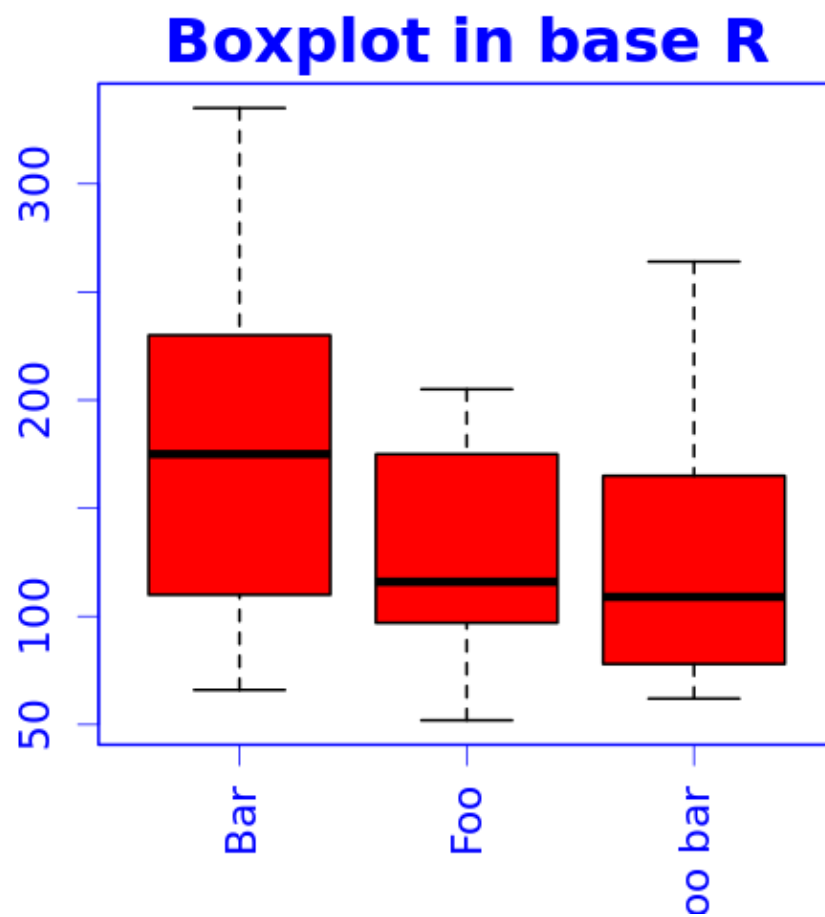


Figure 29:

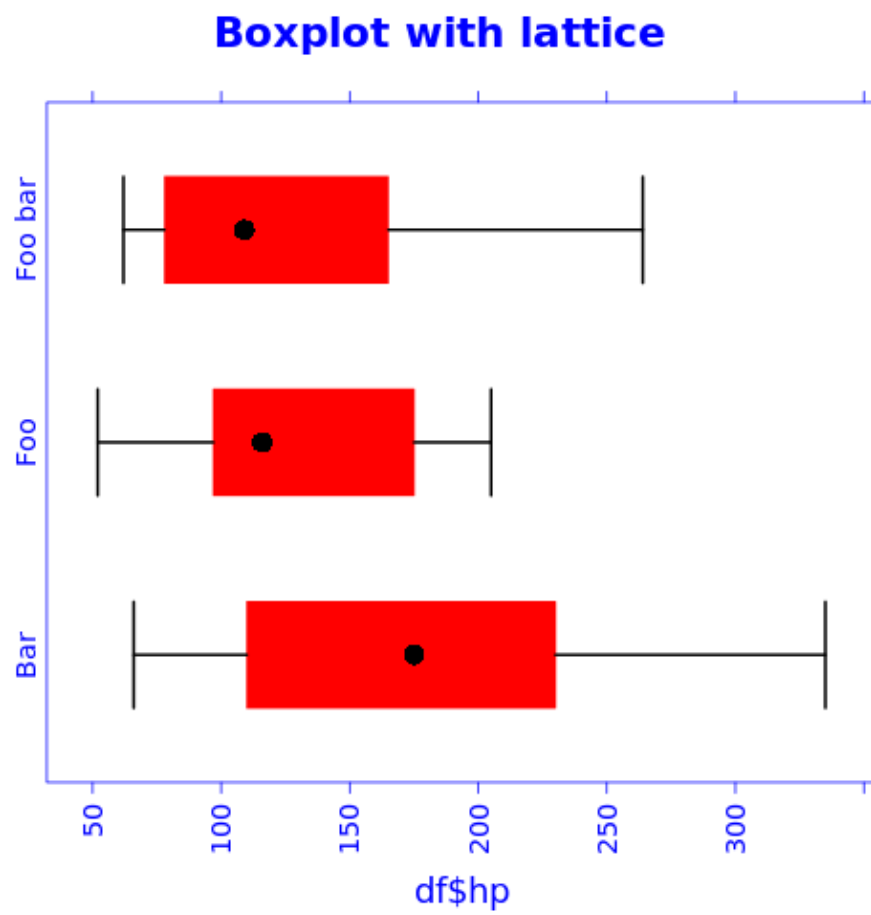


Figure 30:

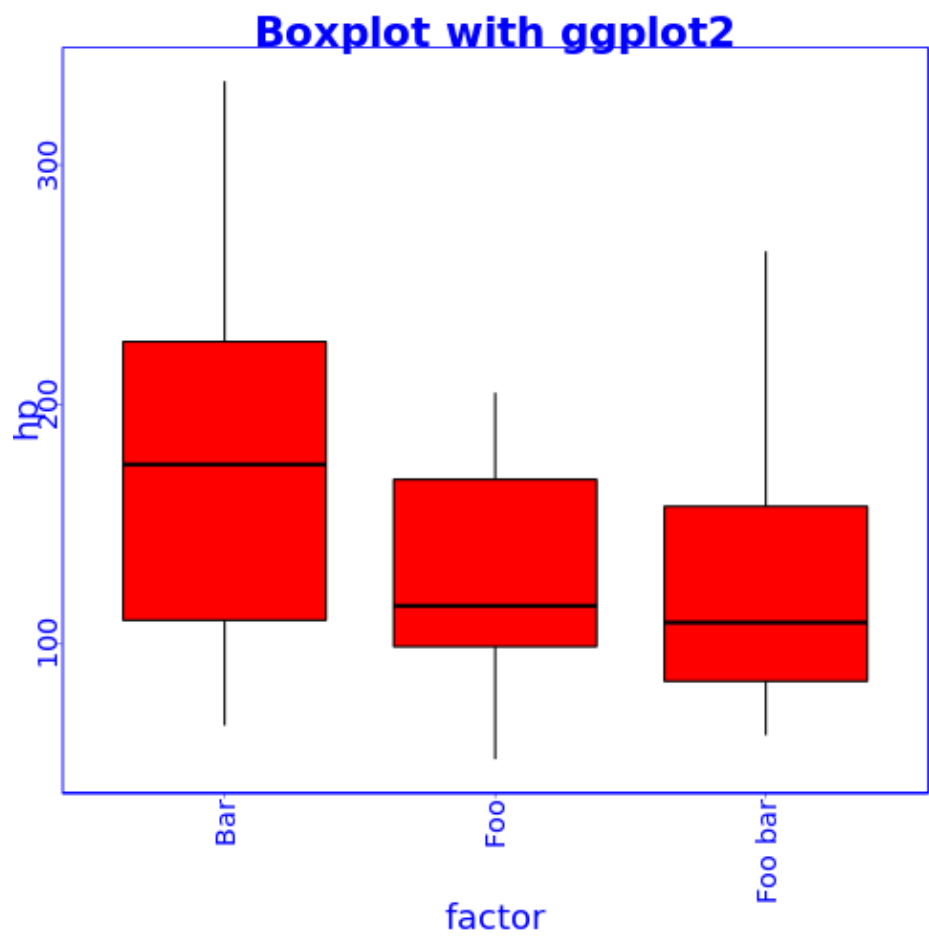


Figure 31:

Boxplot

Base R plot

lattice

ggplot2

Lines

Base R plot

ERROR⁷

lattice

ggplot2

⁷:1:1: unexpected ‘/’ 1: / ^

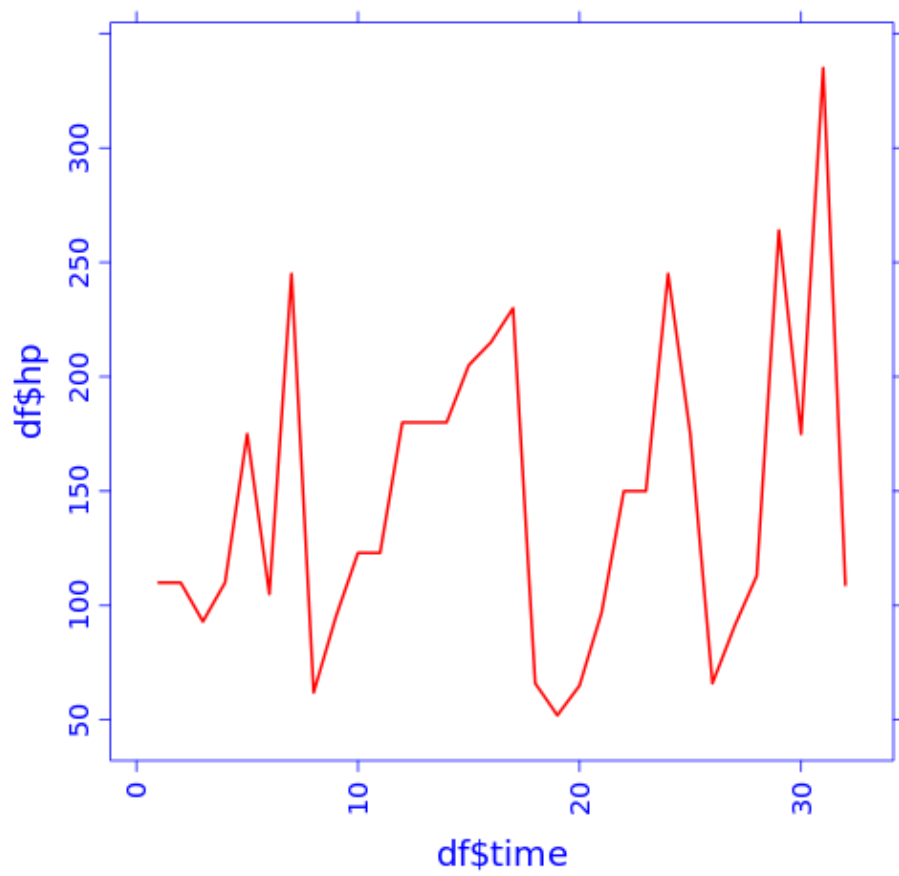


Figure 32:

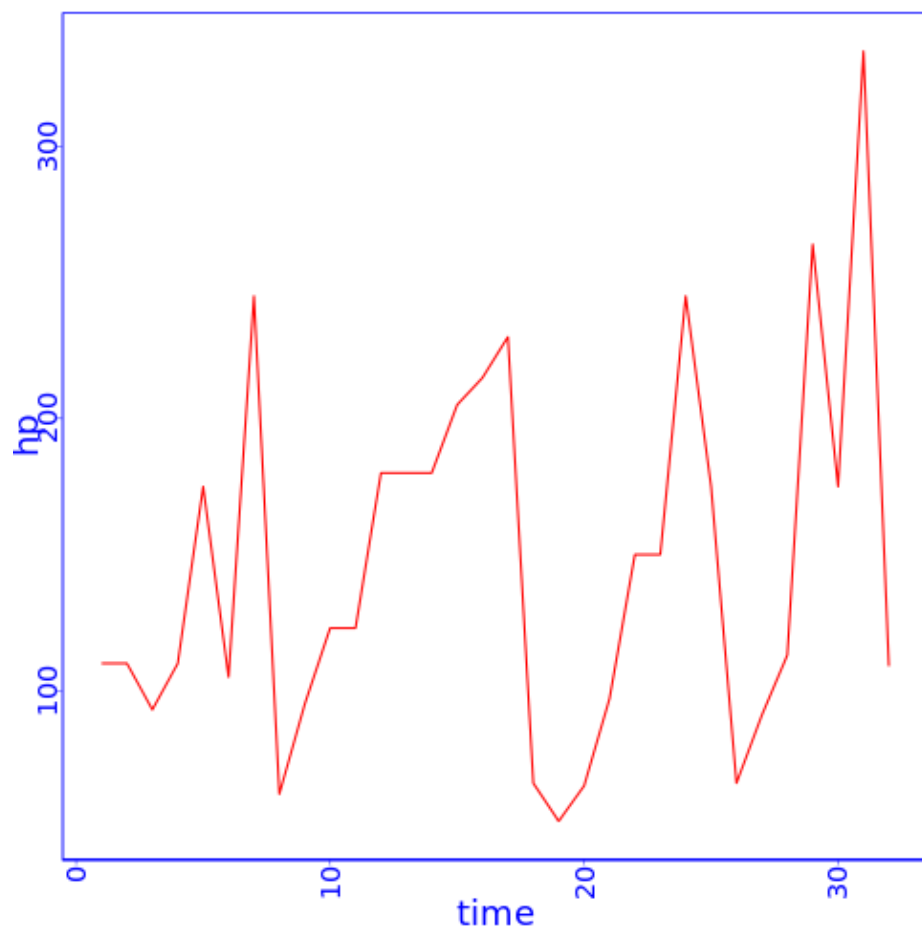


Figure 33: