



# AlgebraOfGraphics.jl Cheat Sheet

```
df_one = (A=[1,4,6,8], B=[2,6,4,5], C=[3,2,1,0], D=["a","b","c","d"])
df_two = (E=repeat(["e","f"],inner=50), F=[randn(50);randn(50)+3])
df_three = (G=1:30, H=sin.(range(0,2pi,30)).+rand.(), I=cos.(range(0,2pi,30)).+rand.())
df_four = (J=repeat(1:3,3), K=repeat(1:3,inner=3), L=[0,1,2,0.5,2,4,1,4,5])
df_five = (M=repeat(1:3,3), N=[0,2,3,0.5,3.5,5,1.5,7], O=repeat(["g","h","i"],inner=3))
df_six = (P=1:4, Q=["A","B","A","B"], R=4:-1:1, S=[0.5,0.6,0.3,0.7], T=[5.1,3.9,2.7,1.5], U=[1,1,2,2])
```

**data(df\_one) \* mapping(:A, :B)**

- \* visual(Scatter)
- \* mapping(color=:C)  
\* visual(Scatter)
- \* mapping(color=:C)  
\* visual(Scatter) |>  
draw(scales(Color=:;colormap=:plasma))
- \* mapping(color=:D)  
\* visual(Scatter)
- \* mapping(color=:D)  
\* visual(Scatter) |>  
draw(scales(Color=:;palette=:Set1\_5))
- \* visual(Lines)
- \* visual(ScatterLines)
- \* visual(Stairs)
- \* visual(BarPlot)
- \* visual(BarPlot,direction=:x)
- \* mapping(text=:D=>verbatim)  
\* visual(Makie.Text)
- \* mapping(text=:D=>verbatim)  
\* visual(Annotation)

**data(df\_one) \* mapping(:A)**

- \* visual(HLines)
- \* visual(VLines)

**data(df\_two) \* mapping(:E, :F)**

- \* visual(Violin)
- \* visual(Violin,orientation=:horizontal)
- \* visual(BoxPlot)
- \* visual(BoxPlot,orientation=:horizontal)

**data(df\_two) \* mapping(:F)**

- \* histogram()
- \* AoG.density()
- \* visual(QQNorm)

**data(df\_three) \* mapping(:G, :H)**

- \* smooth()

- \* linear()
- \* AoG.density()

**data(df\_four) \* mapping(:J, :K, :L)**

- \* visual(Heatmap)
- \* contours(bands=4)
- \* filled\_contours(bands=4)

**data(df\_five) \* mapping(:M, :N)**

- \* mapping(group=:0)  
\* visual(Lines)
- \* mapping(color=:0)  
\* visual(Lines)
- \* mapping(linestyle=:0)  
\* visual(Lines)
- \* mapping(marker=:0)  
\* visual(ScatterLines)
- \* mapping(color=:0,dodge=:0)  
\* visual(BarPlot)
- \* mapping(color=:0,stack=:0)  
\* visual(BarPlot)

- \* mapping(row=:0)  
\* visual(Lines)
- \* mapping(col=:0)  
\* visual(Lines)
- \* mapping(layout=:0)  
\* visual(Lines)

**data(df\_six)**

- \* (mapping(:P,:R) \* visual(BarPlot)  
+ mapping(:P,:R,:S) \*  
visual(Errorbars))
- \* (mapping(:P,:R) \* visual(BarPlot)  
+ mapping(:P,:R,:S,:S=>x->2x) \*  
visual(Errorbars))
- \* mapping(group=:0)  
\* visual(Lines)
- \* (mapping(:U,:R,dodge=:Q,color=:Q) \*  
visual(BarPlot)  
+ mapping(:U,:R,:S,dodge\_x=:Q) \*  
visual(Errorbars))

**Others**

- data(df\_one) \* mapping(:A,:B) \*  
visual(Scatter) + mapping(2,0.4) \*  
visual(ABLines)
- mapping(-5,-17,4,6) \* visual(Annotation,  
text="Here", style=Ann.Styles.LineArrow())