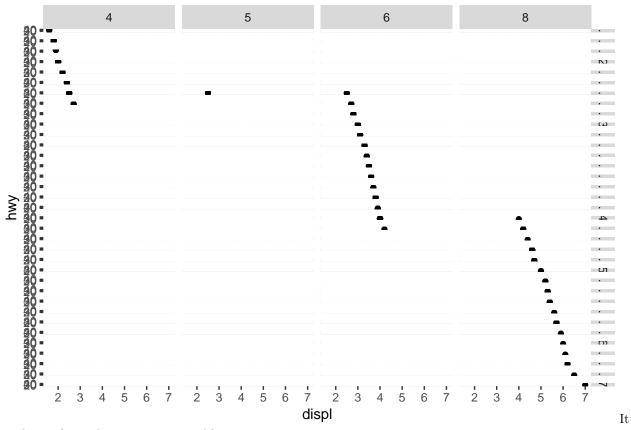
# r4ds Ex 3.5.1 MW 2019/05/14

## 3.5.1

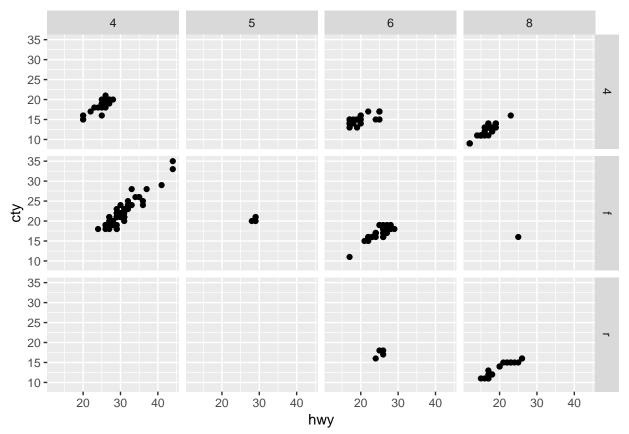
1



is drawn for each continuous variable.

 $\mathbf{2}$ 

```
ggplot(data=mpg) +
geom_point(mapping=aes(x=hwy, y=cty)) +
facet_grid(drv ~ cyl)
```



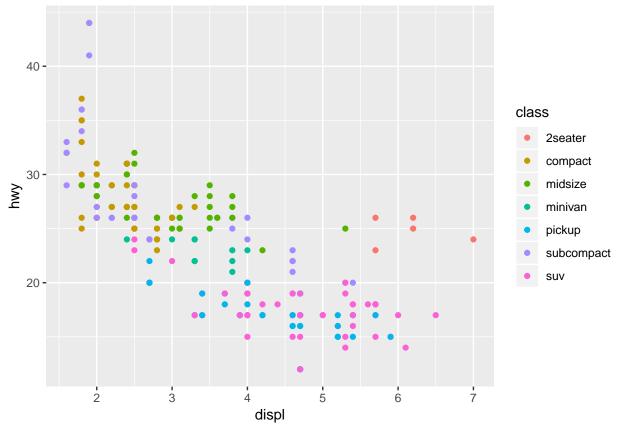
The empty cells shows no combinations of drv and cyl in itself.

## 3

. means ignoring dimensions. So,  $\mathtt{drv}\,\,\boldsymbol{\,\scriptstyle{\sim}}\,\,$  . facet only  $\mathtt{drv}.$ 

### 4

```
ggplot(data=mpg) +
 geom_point(mapping=aes(x=displ, y=hwy, color=class))
```



Colorized by class. ### Facet #### advantage - Friendly to color blinders. - Easy to see the relationship within class

#### disadvantage

• Increase the number of graphs by the number of catagories.

#### Color

#### advantage

• Easy to see the relationship between class

#### disadvantage

• Difficult to see if the number of o¥bservation increases

#### **5**

...nrow, ncol: Number of rows and columns. Because facet\_grid automatically determined rows and cols.

#### 6

If you don't use unique values, it's complicated.