

1 Pré-requisito

2 Base de dados

3 Gráficos

# Capítulo 3 - Visualização de dados

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09 Setembro, 2021

## 1 Pré-requisito

```
library(tidyverse)
```

## 2 Base de dados

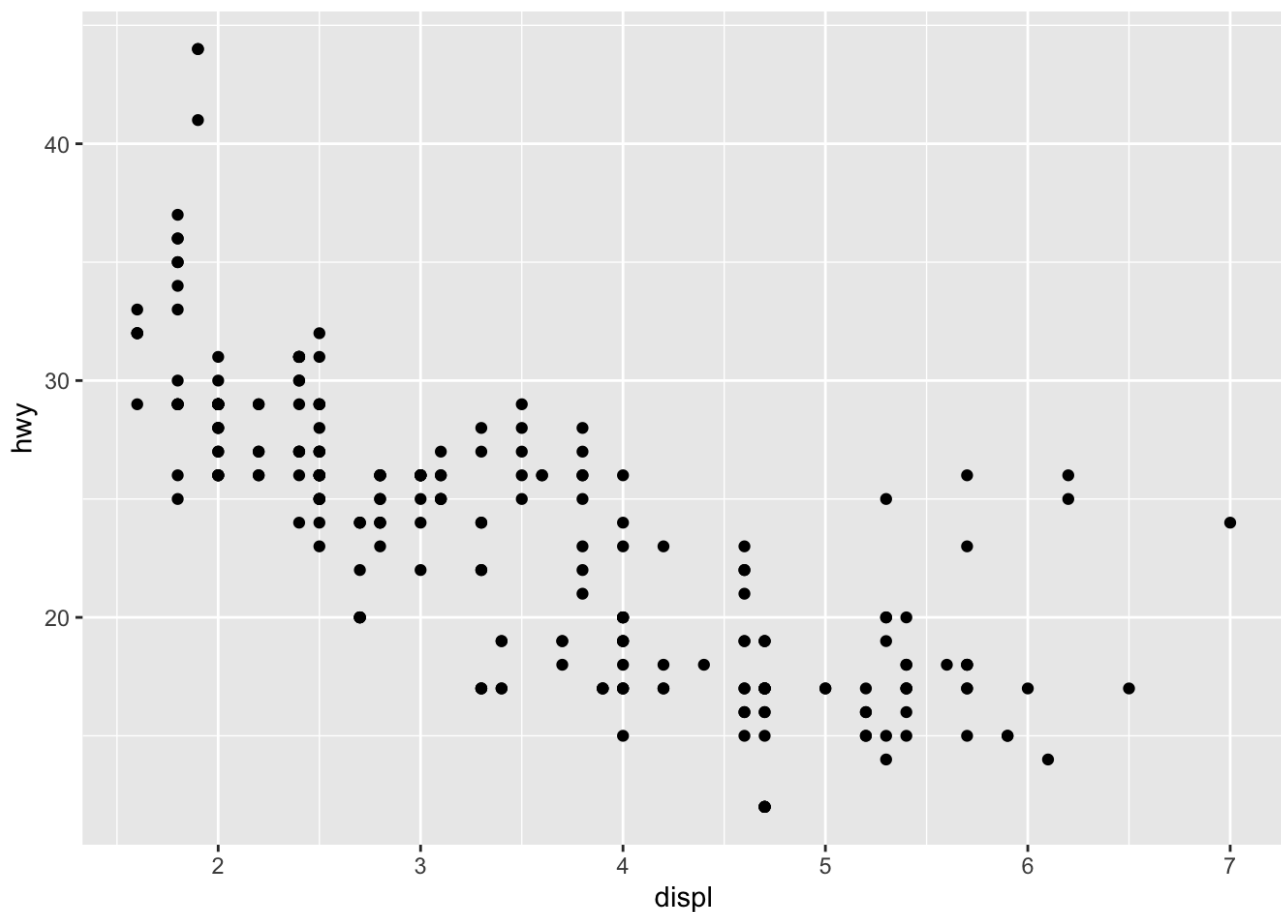
```
glimpse(mpg)
```

```
## Rows: 234
## Columns: 11
## $ manufacturer <chr> "audi", "audi", "audi", "audi", "audi", "audi", "a
udi", "...
## $ model <chr> "a4", "a4", "a4", "a4", "a4", "a4", "a4", "a4 quat
tro", "...
## $ displ <dbl> 1.8, 1.8, 2.0, 2.0, 2.8, 2.8, 3.1, 1.8, 1.8, 2.0,
2.0, 2...
## $ year <int> 1999, 1999, 2008, 2008, 1999, 1999, 2008, 1999, 19
99, 200...
## $ cyl <int> 4, 4, 4, 4, 6, 6, 6, 4, 4, 4, 4, 6, 6, 6, 6, 6,
8, 8, ...
## $ trans <chr> "auto(l5)", "manual(m5)", "manual(m6)", "auto(a
v)", "auto...
## $ drv <chr> "f", "f", "f", "f", "f", "f", "f", "4", "4", "4",
"4", "4...
## $ cty <int> 18, 21, 20, 21, 16, 18, 18, 18, 16, 20, 19, 15, 1
7, 17, 1...
## $ hwy <int> 29, 29, 31, 30, 26, 26, 27, 26, 25, 28, 27, 25, 2
5, 25, 2...
## $ fl <chr> "p", "p", "p", "p", "p", "p", "p", "p", "p", "p",
"p", "p...
## $ class <chr> "compact", "compact", "compact", "compact", "compa
ct", "c..."
```

# 3 Gráficos

## 3.1 Gráfico de dispersão

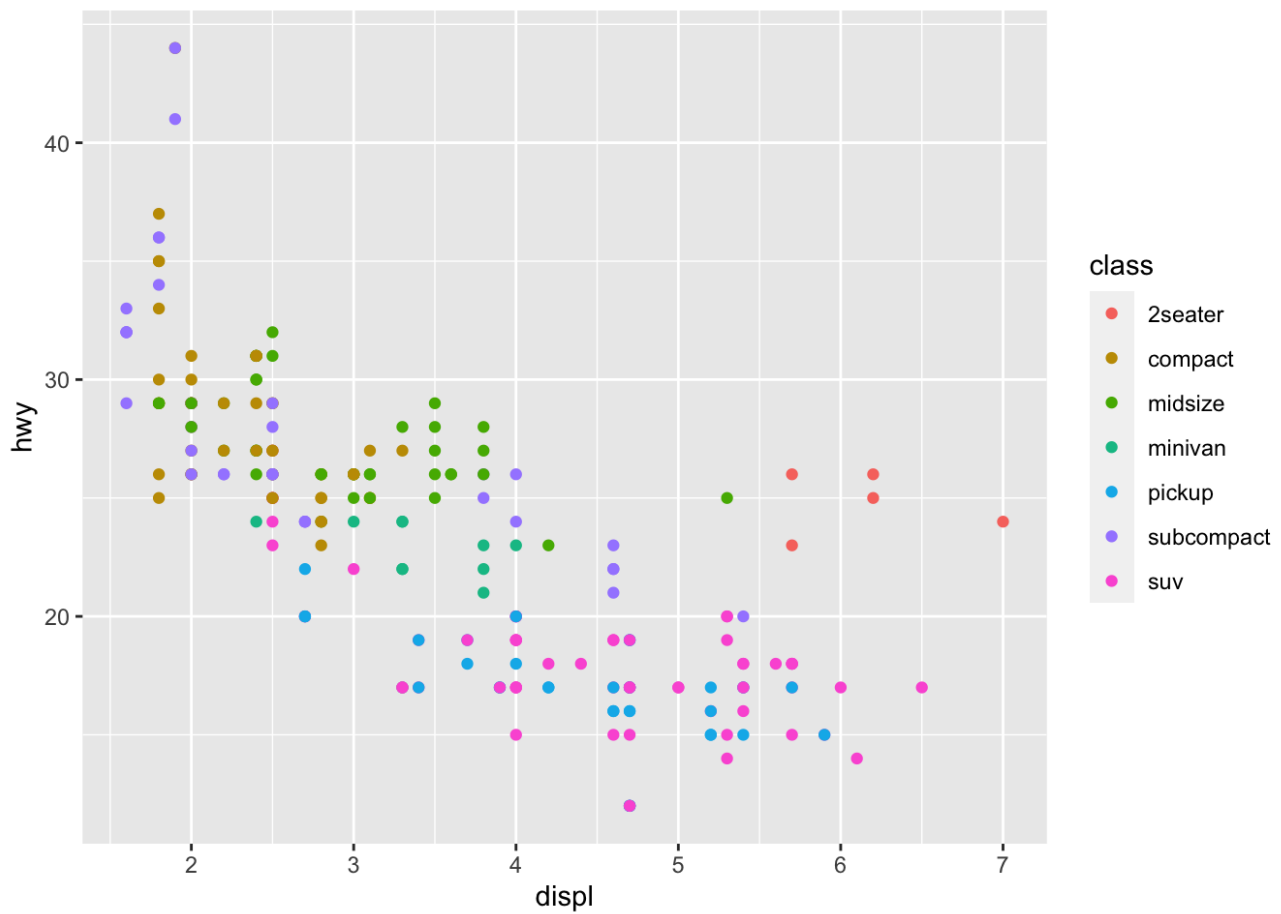
```
mpg %>%  
  ggplot() +  
  geom_point(aes(x = displ, y = hwy))
```



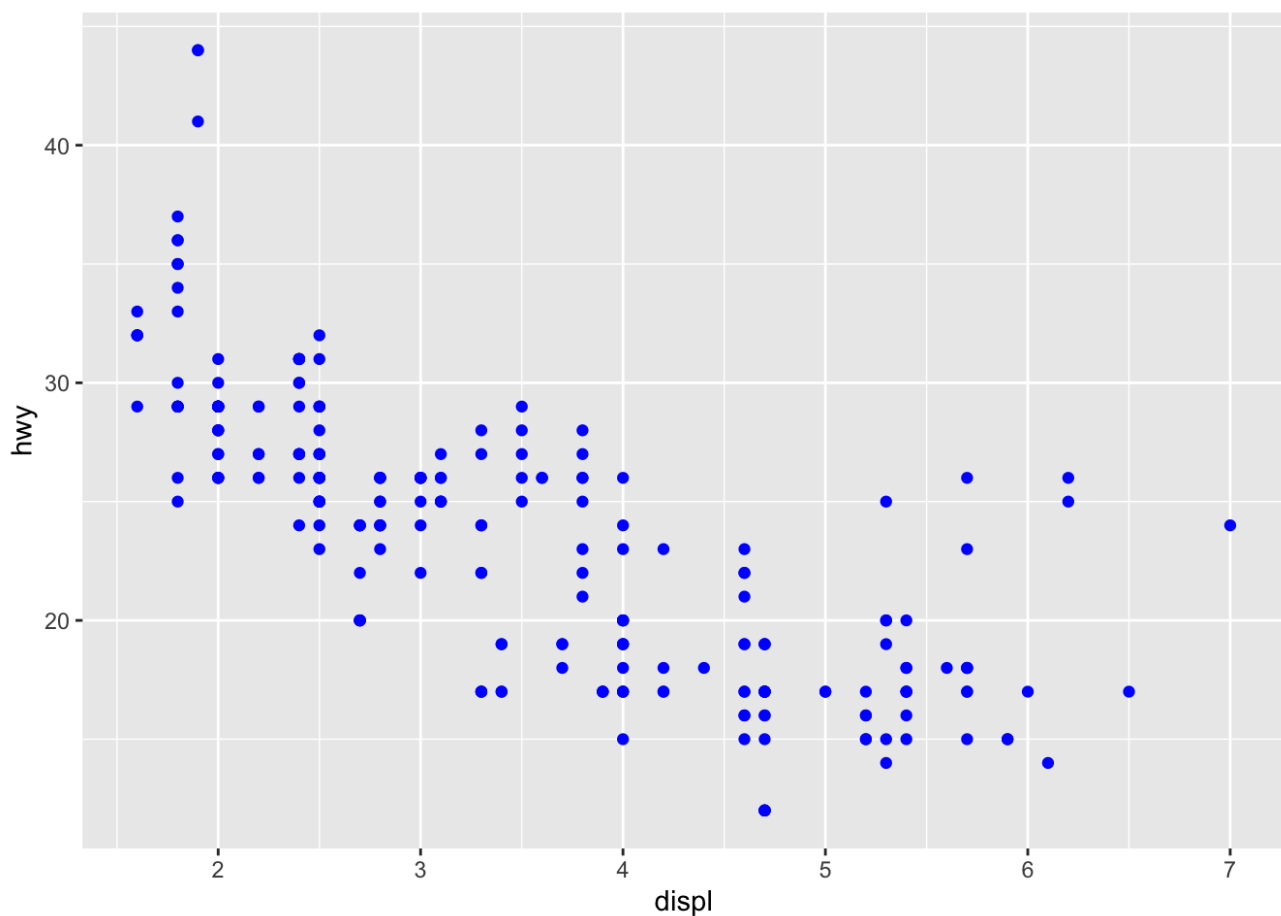
- **Fazer exercícios 3.2.4** (<https://r4ds.had.co.nz/data-visualisation.html> (<https://r4ds.had.co.nz/data-visualisation.html>))

### 3.1.1 Adicionando cores

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



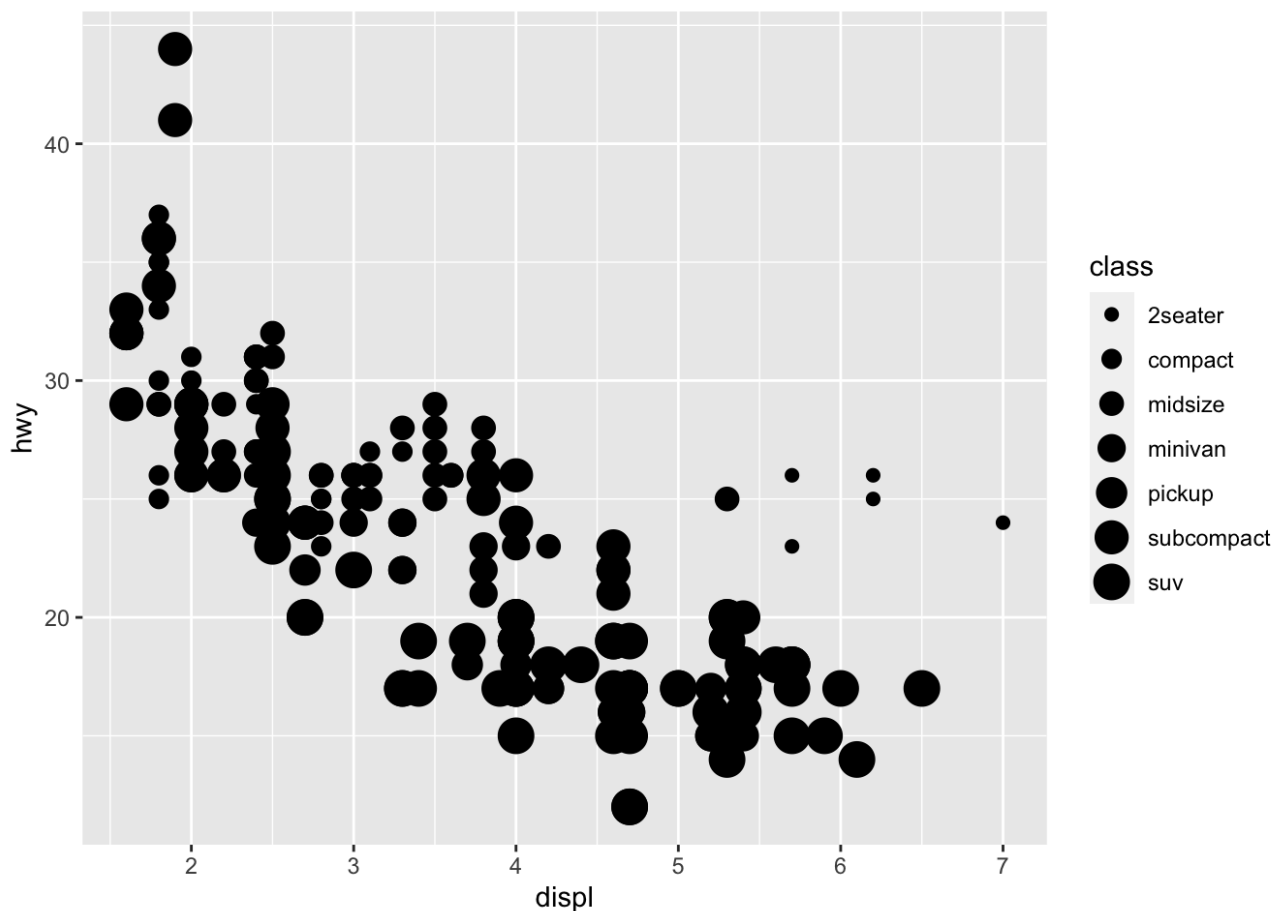
```
mpg %>%
  ggplot() +
  geom_point(aes(x = displ, y = hwy), color = "blue")
```



## 3.1.2 Alterando o tamanho

```
mpg %>%  
  ggplot() +  
  geom_point(aes(x = displ, y = hwy, size = class))
```

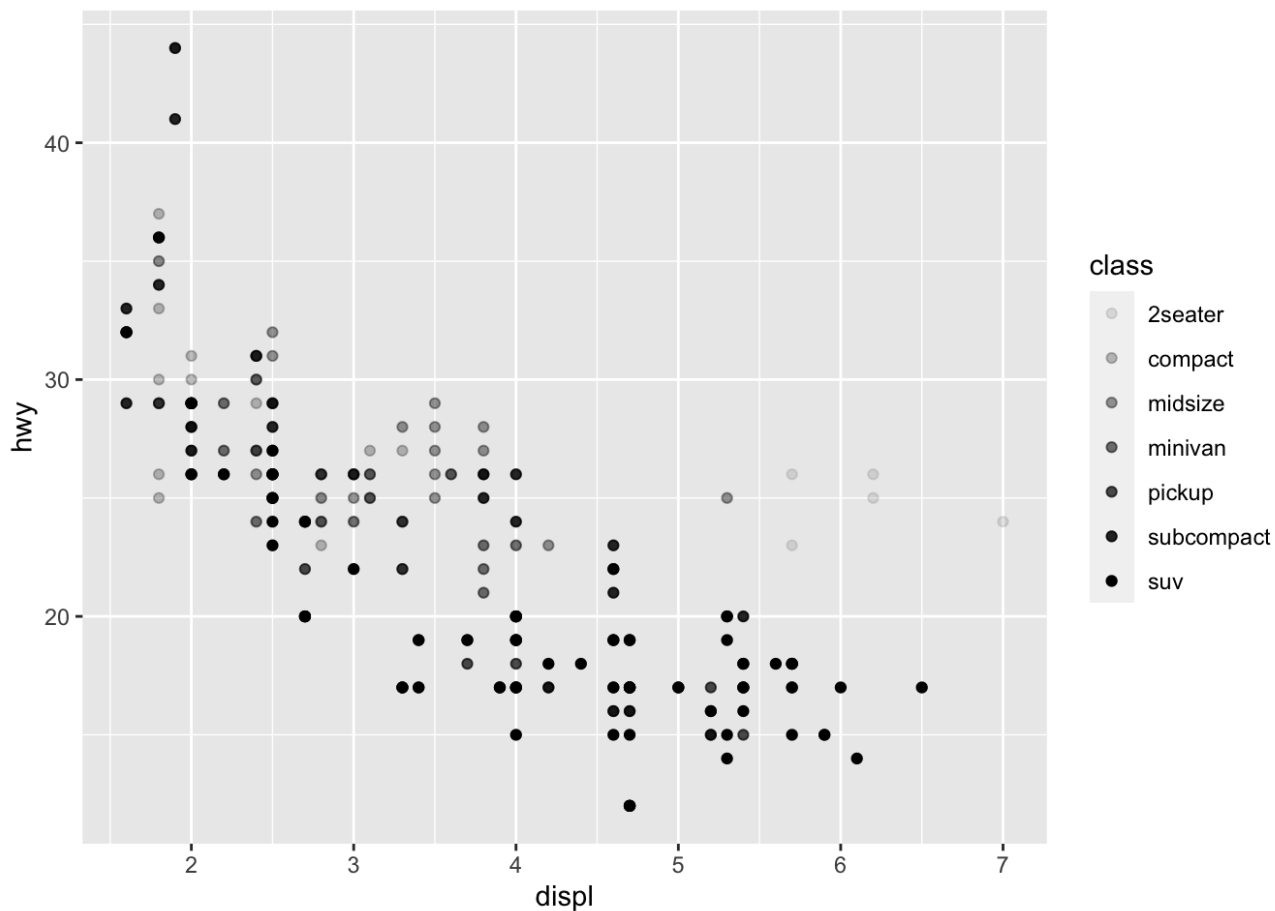
```
## Warning: Using size for a discrete variable is not advised.
```



## 3.1.3 Alterando a transparência

```
mpg %>%  
  ggplot() +  
  geom_point(aes(x = displ, y = hwy, alpha = class))
```

```
## Warning: Using alpha for a discrete variable is not advised.
```

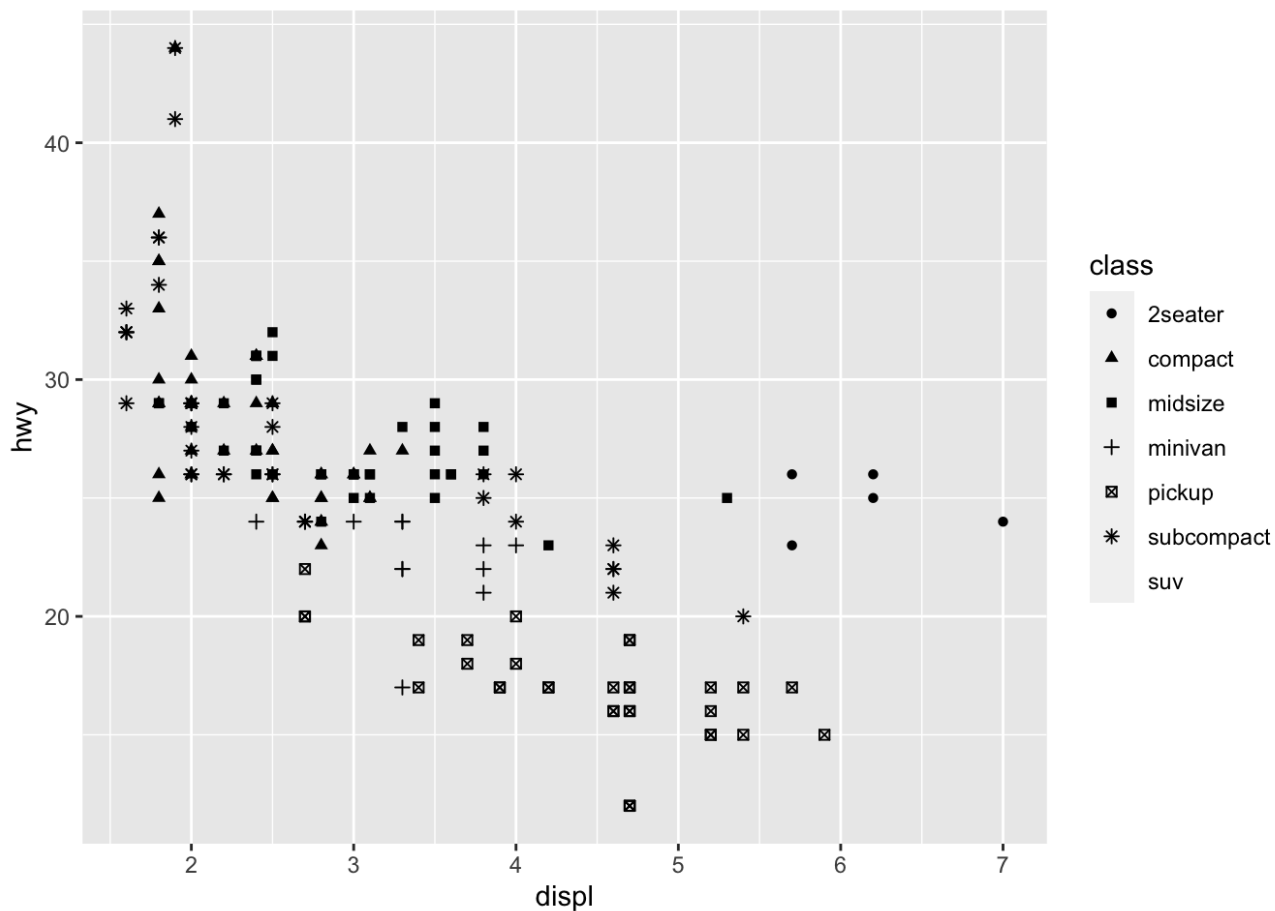


### 3.1.4 Alterando a forma dos pontos

```
mpg %>%
  ggplot() +
  geom_point(aes(x = displ, y = hwy, shape = class))
```

```
## Warning: The shape palette can deal with a maximum of 6 discrete values
because
## more than 6 becomes difficult to discriminate; you have 7. Consider
## specifying shapes manually if you must have them.
```

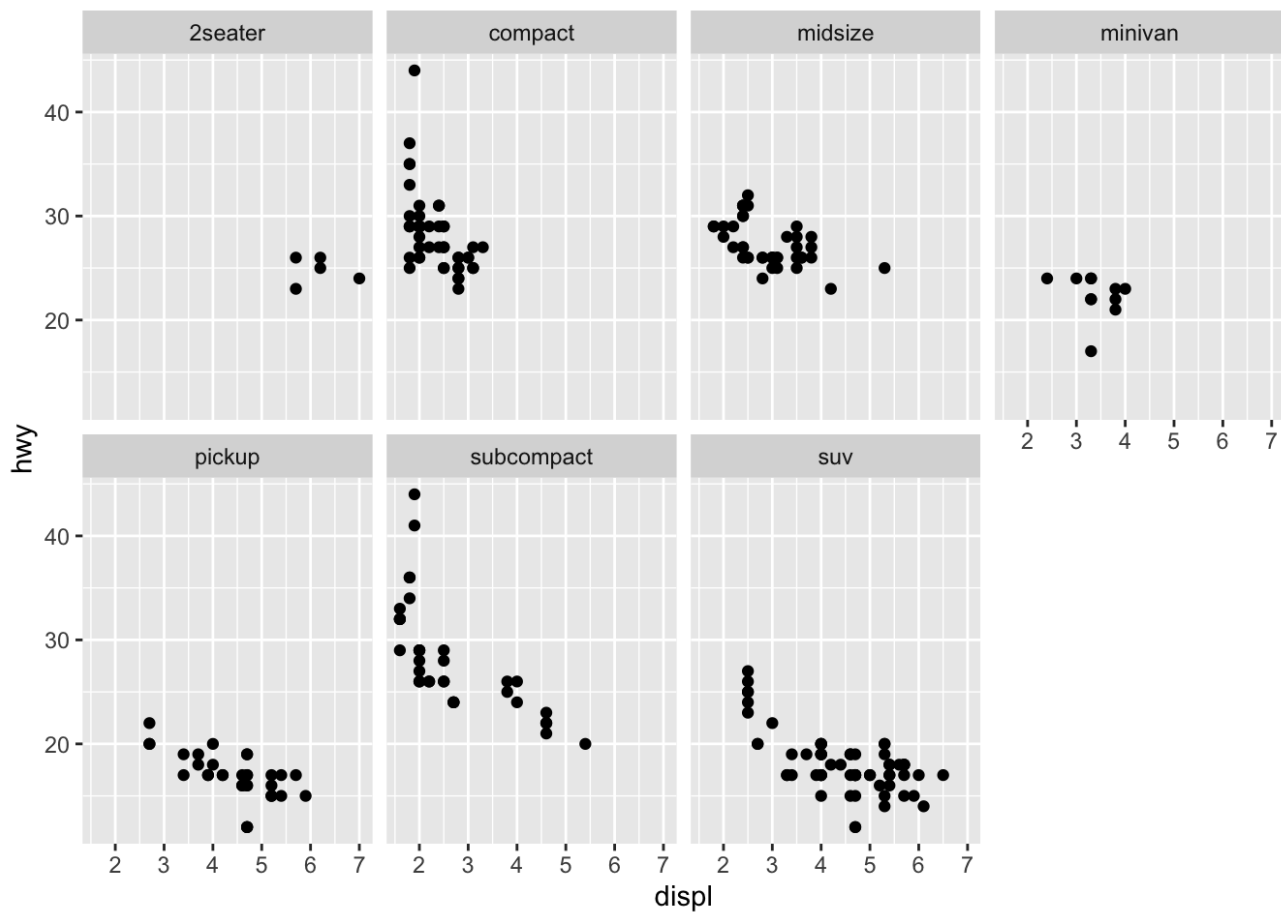
```
## Warning: Removed 62 rows containing missing values (geom_point).
```



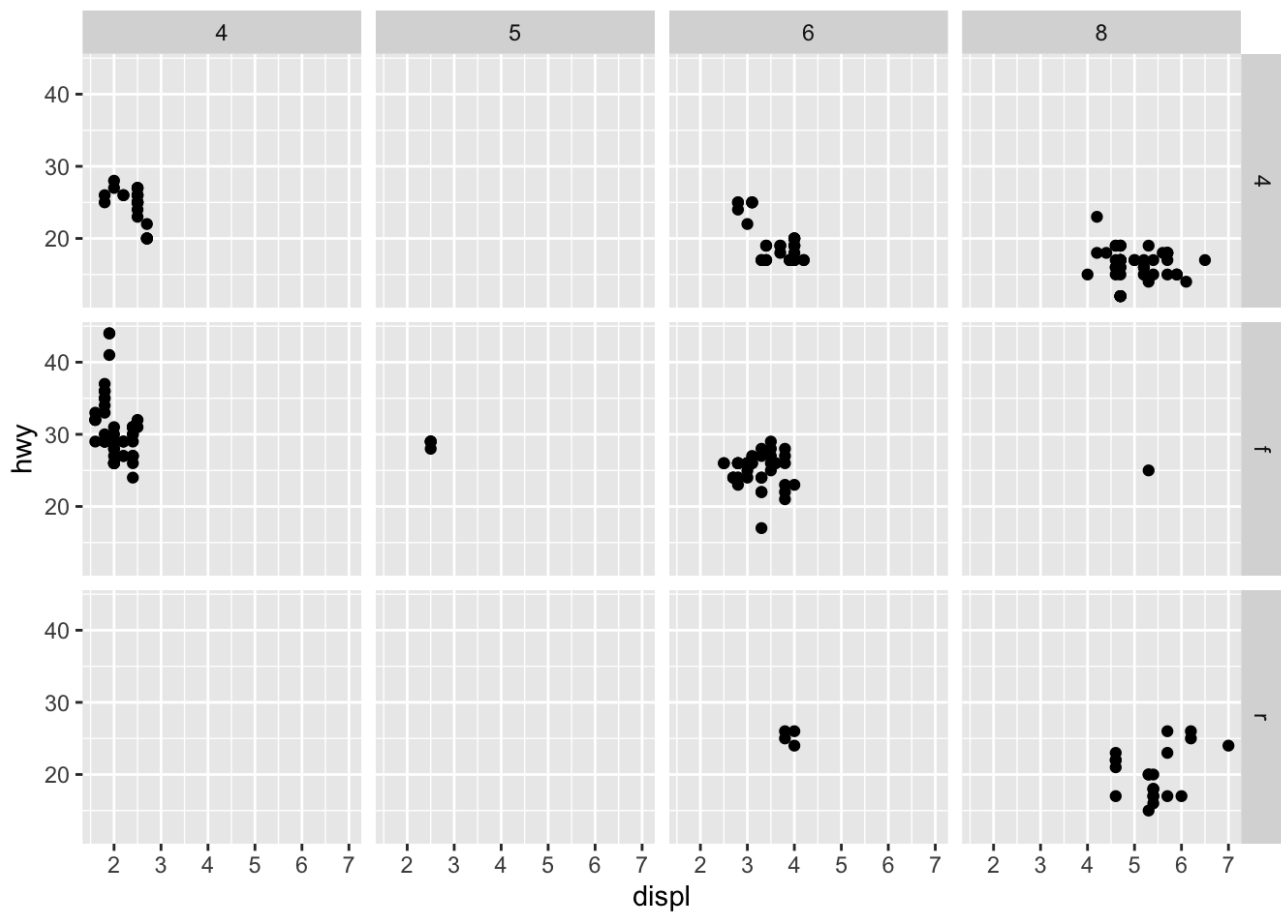
- Fazer os exercícios 3.3.1

### 3.1.5 Facets - Facetas

```
mpg %>%  
  ggplot() +  
  geom_point(aes(x = displ, y = hwy)) +  
  facet_wrap(~ class, nrow = 2)
```

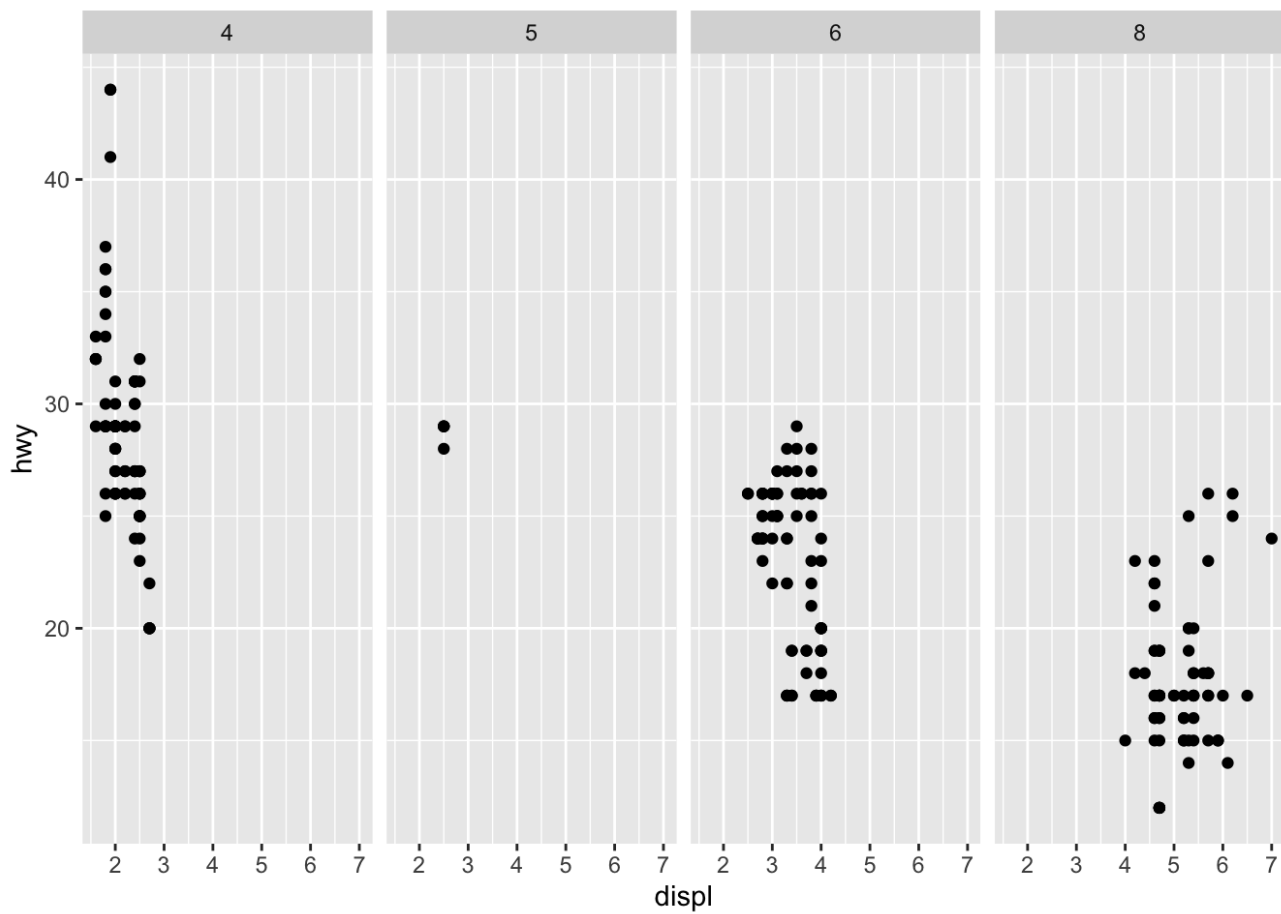


```
mpg %>%  
  ggplot() +  
  geom_point(aes(x = displ, y = hwy)) +  
  facet_grid(drv ~ cyl)
```



```
mpg %>%  
  ggplot() +  
  geom_point(aes(x = displ, y = hwy)) +  
  facet_grid(. ~ cyl)
```





- Fazer exercícios 3.5.1