ExpositoryGraphics_HW

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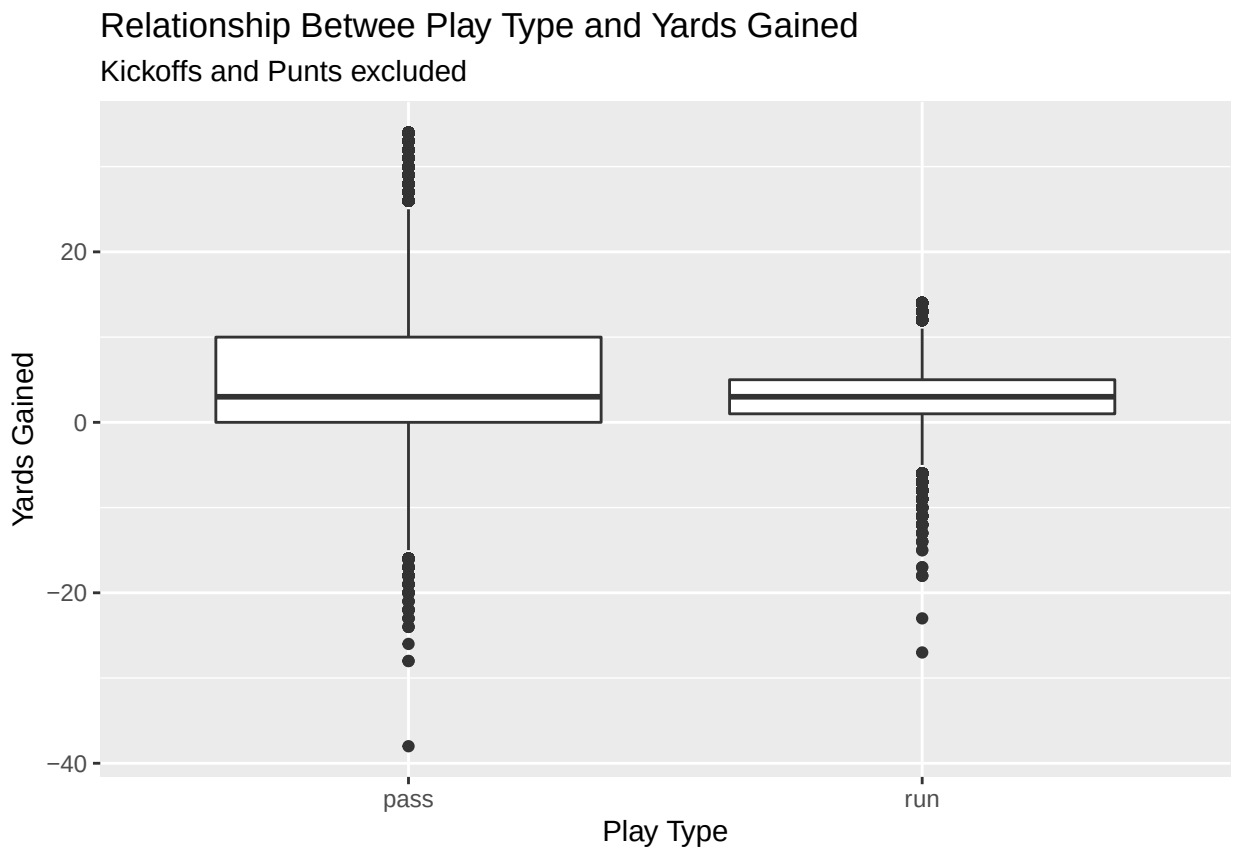
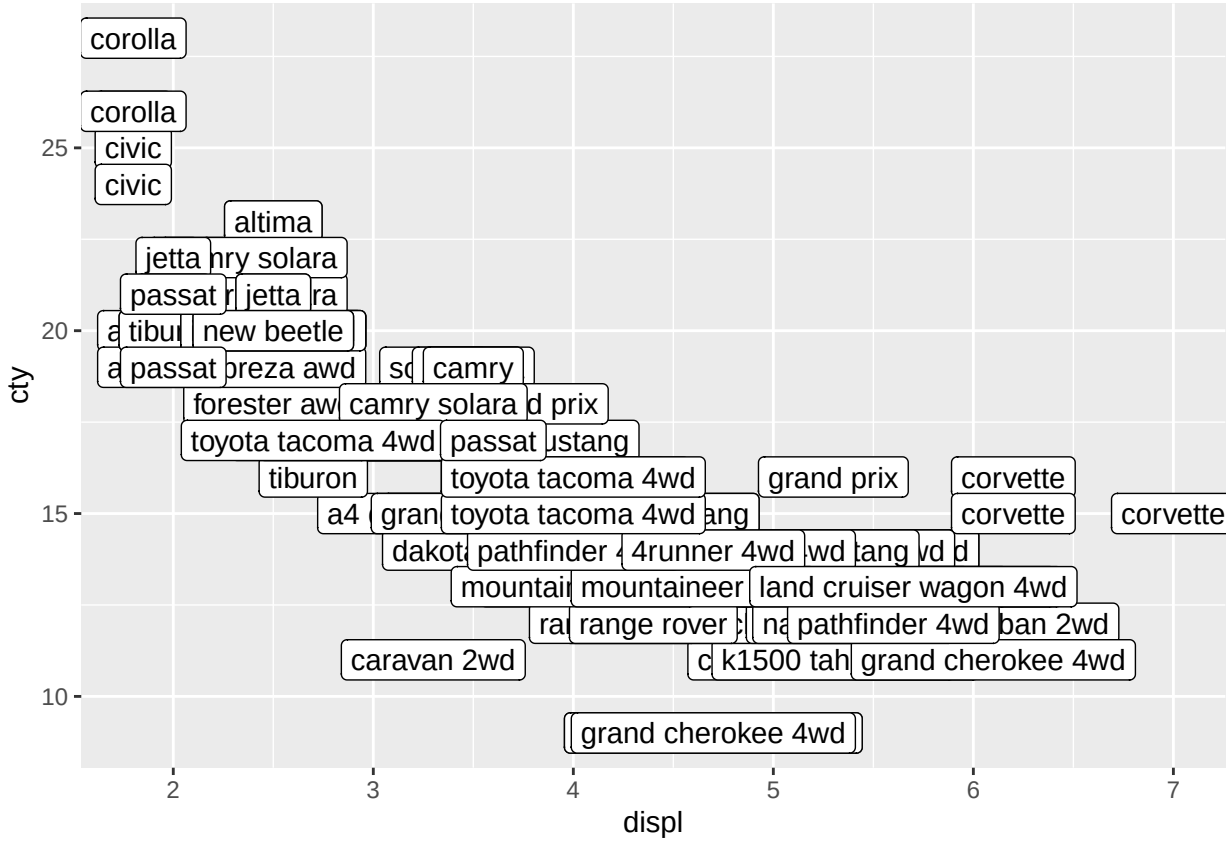
Exercise 1

```
nfl5 %>%
  ggplot(aes(play_type, yards_gained)) +
  geom_boxplot() +
  labs(
    title = "Relationship Betwee Play Type and Yards Gained",
    subtitle = "Kickoffs and Punts excluded",
    x = "Play Type",
    y = "Yards Gained"
  ) -> plot1

plot1
```



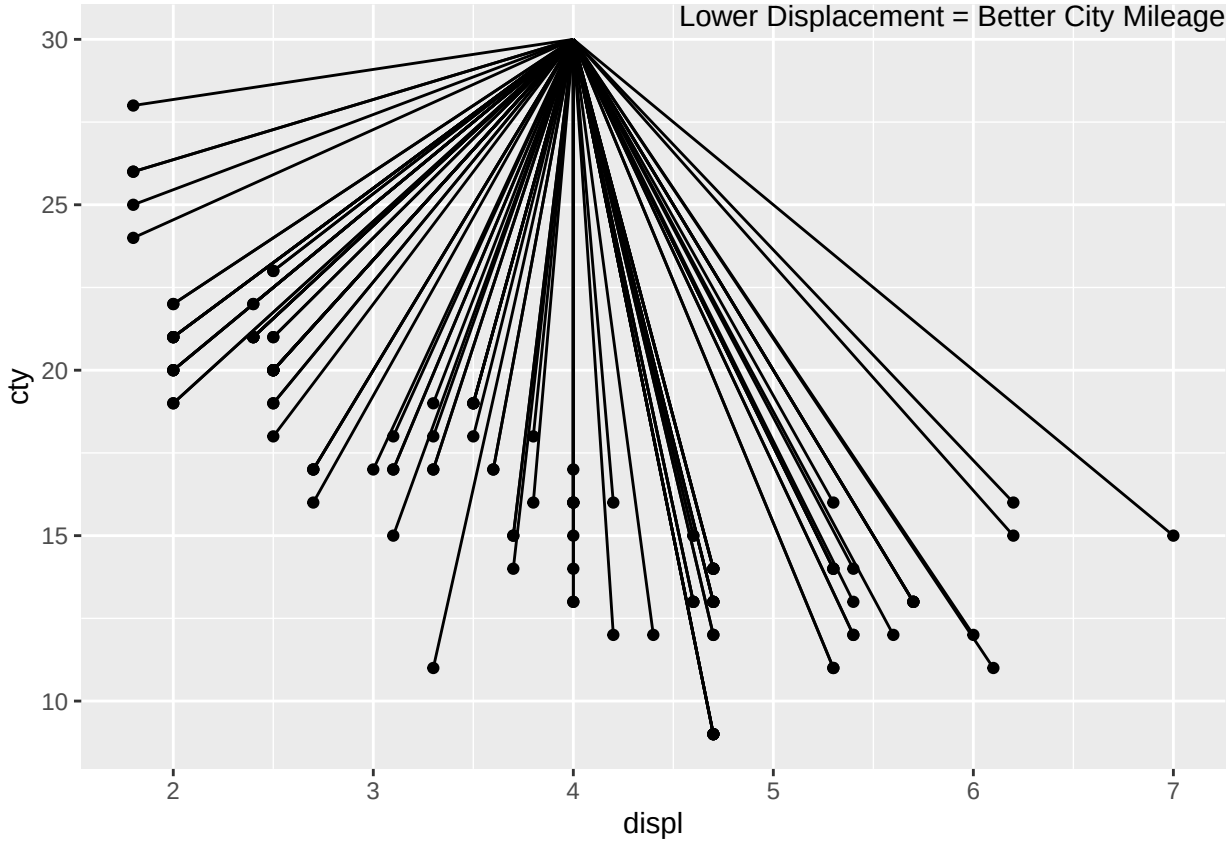
Exercise 2

```
data(mpg)

year2008 <- mpg %>%
  filter(year == 2008)

year2008 %>%
  ggplot(aes(displ, cty)) +
  geom_point() -> plot2

plot2 +
  geom_label(aes(label = model), data = year2008)
```



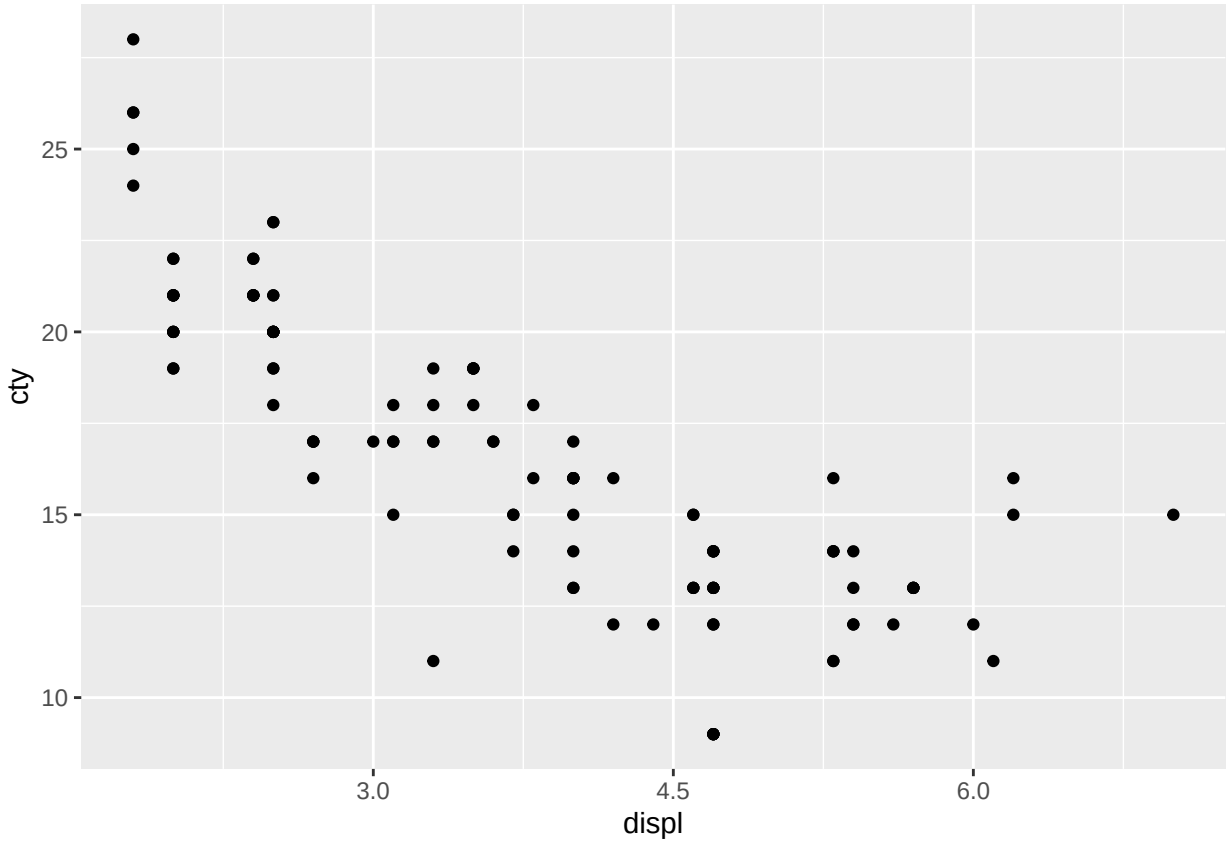
Exercise 3

```
text_df <- tibble(text = "Lower Displacement = Better City Mileage", x = Inf, y = Inf)
plot2 + geom_text(aes(x, y, label = text), data = text_df, vjust = "top", hjust = "right") +
  geom_segment(aes(x = displ, y= cty, xend = 4, yend = 30), data = year2008)
```



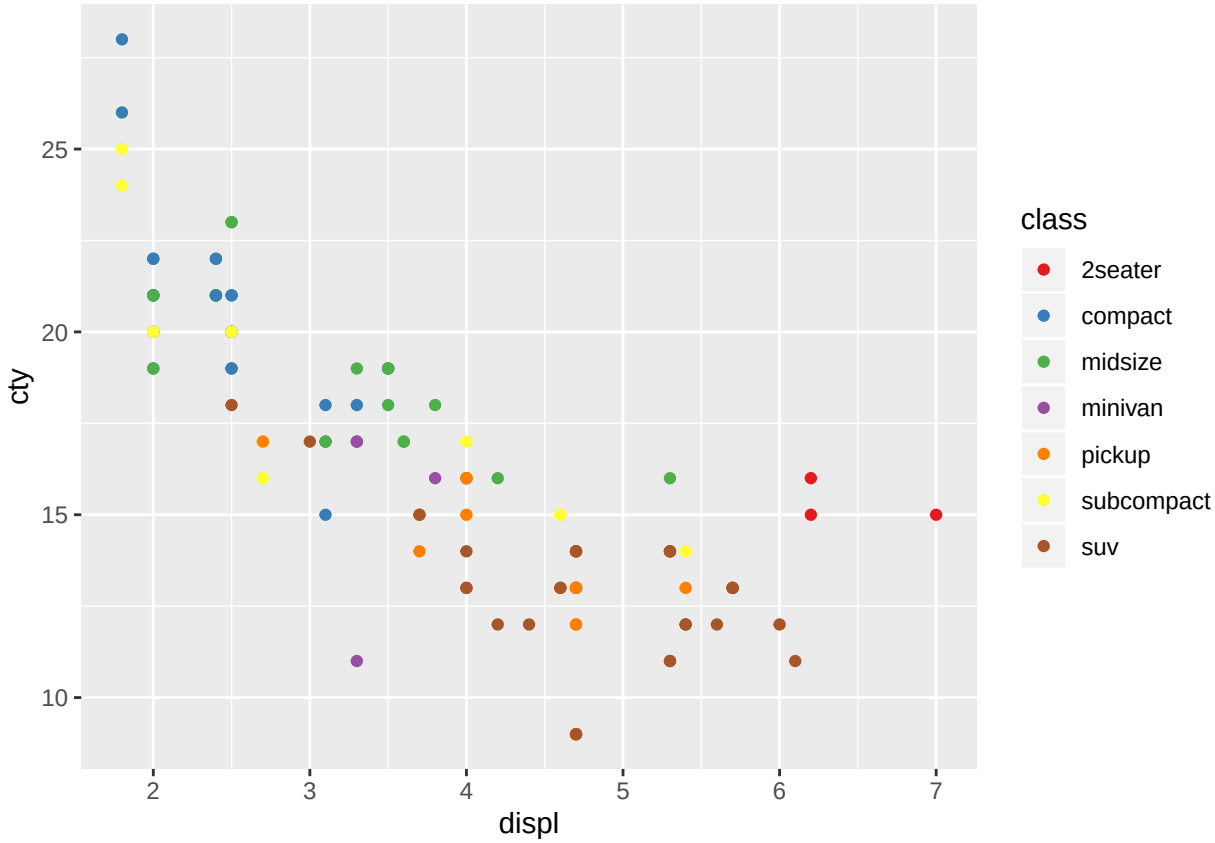
Exercise 4

```
plot2 +
  scale_x_continuous(breaks = seq(0, 25, by = 1.5))
```

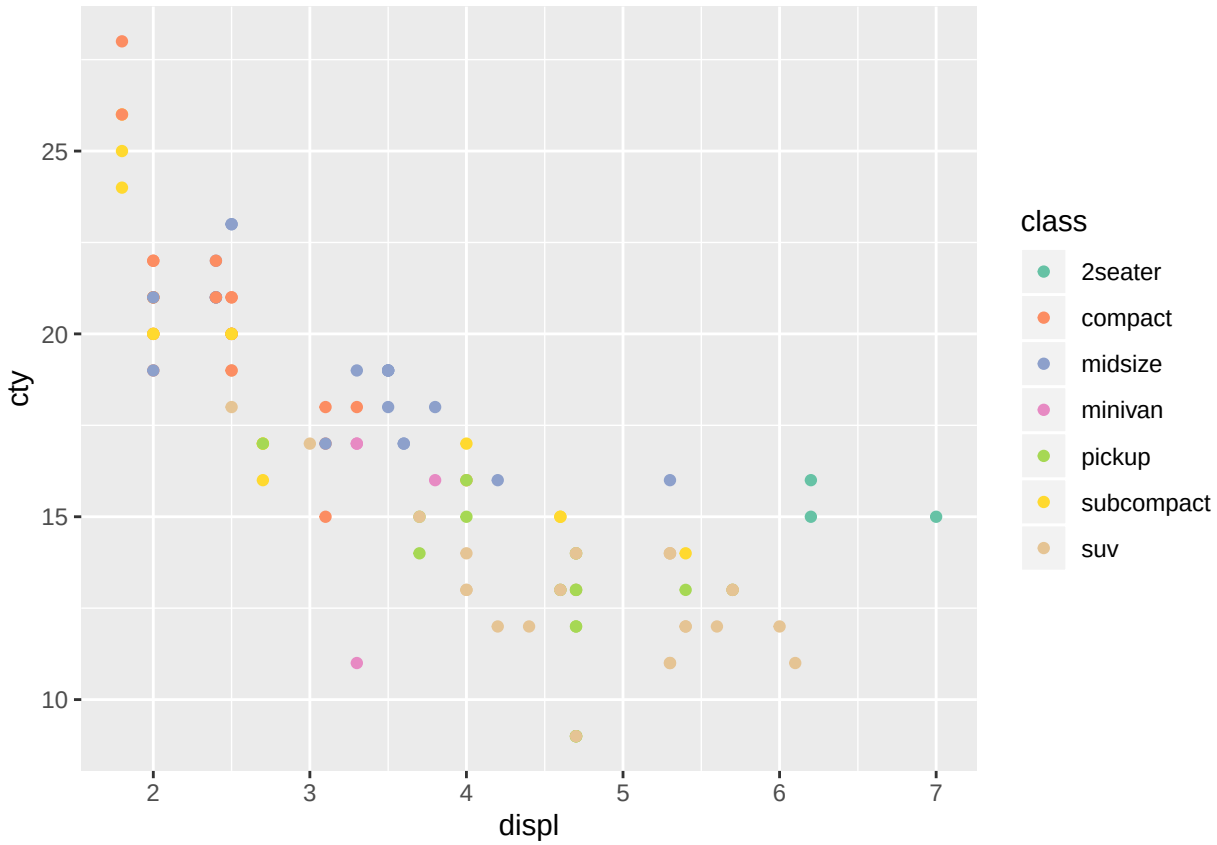


Exercise 5

```
year2008 %>%
  ggplot(aes(displ, cty)) +
  geom_point(aes(color = class)) +
  scale_color_brewer(palette = "Set1")
```



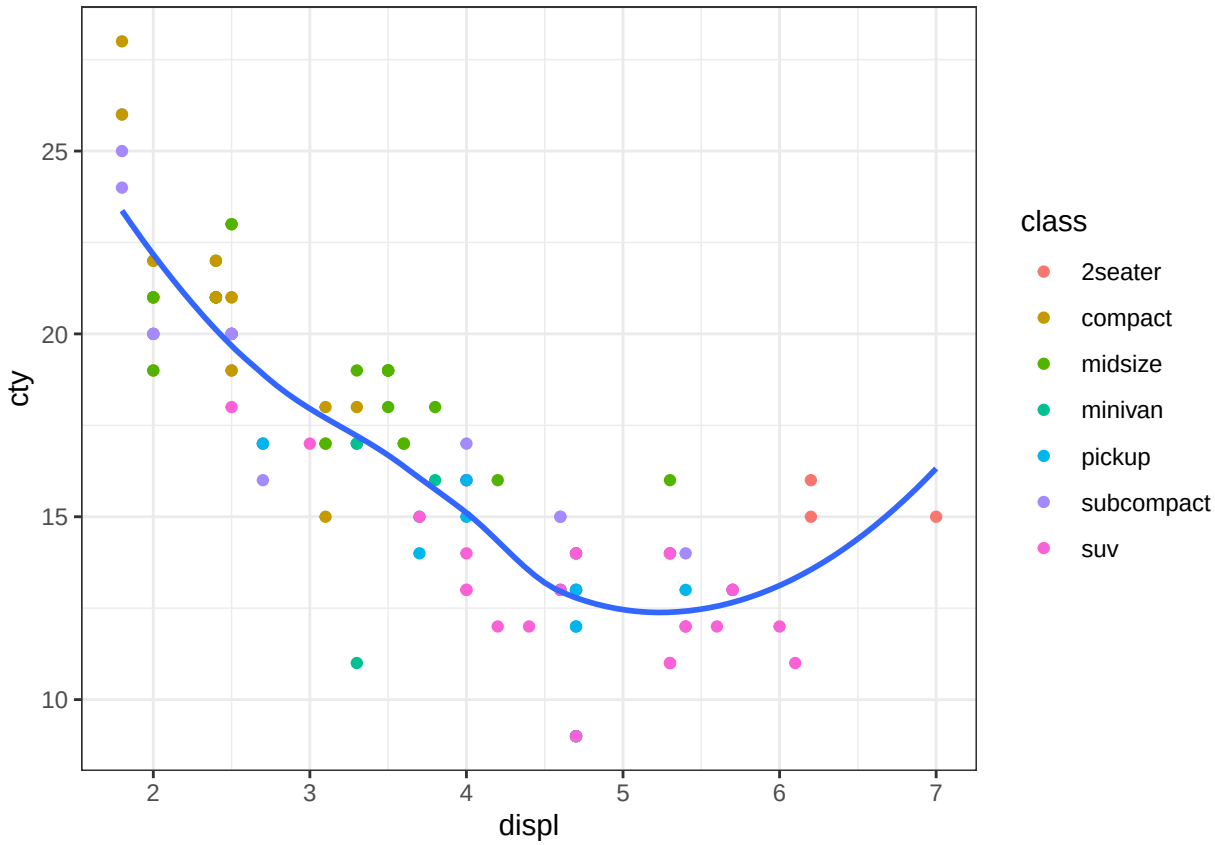

```
year2008 %>%
  ggplot(aes(displ, cty)) +
  geom_point(aes(color = class)) +
  scale_color_brewer(palette = "Set2")
```



Exercise 6

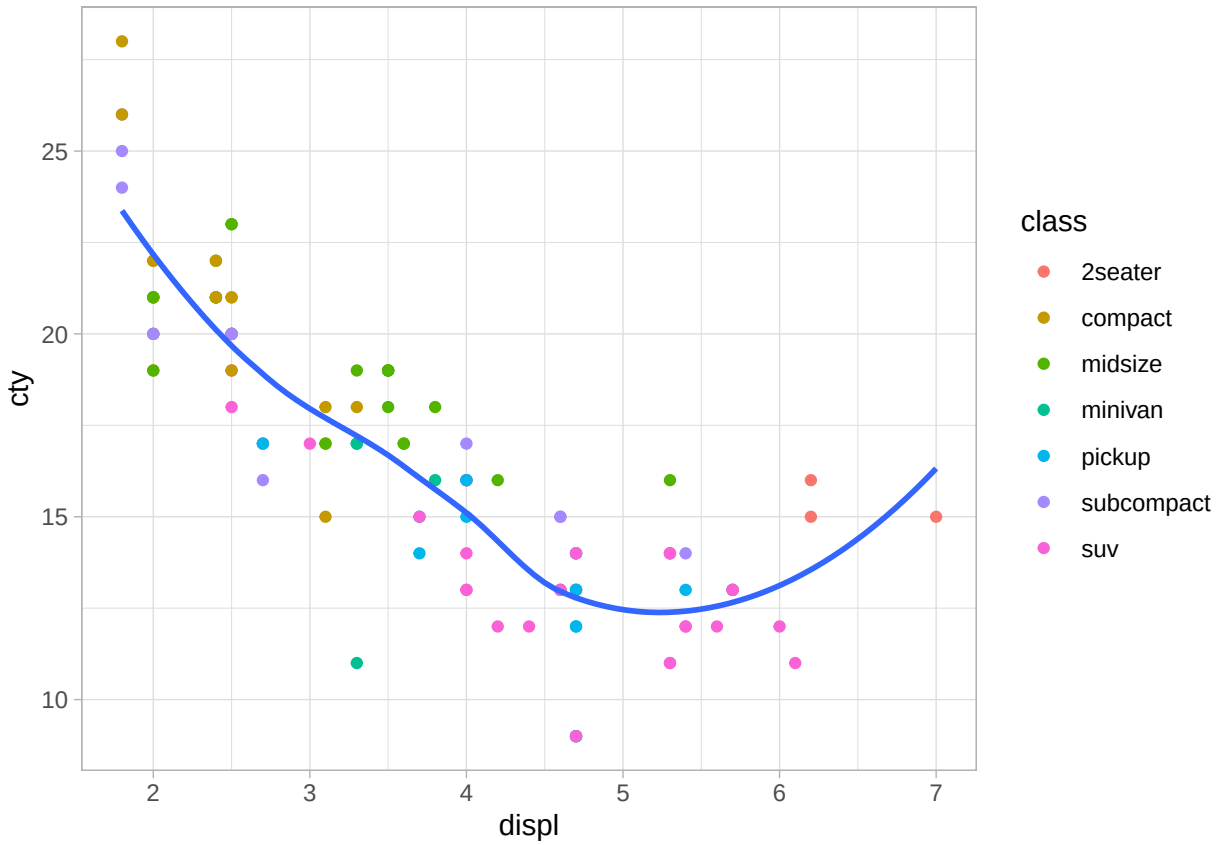
```
year2008 %>%
  ggplot(aes(displ, cty)) +
  geom_point(aes(color = class)) +
  geom_smooth(se = FALSE) +
  theme_bw()
```

```
## `geom_smooth()` using method = 'loess' and formula 'y ~ x'
```




```
year2008 %>%
  ggplot(aes(displ, cty)) +
  geom_point(aes(color = class)) +
  geom_smooth(se = FALSE) +
  theme_light()
```

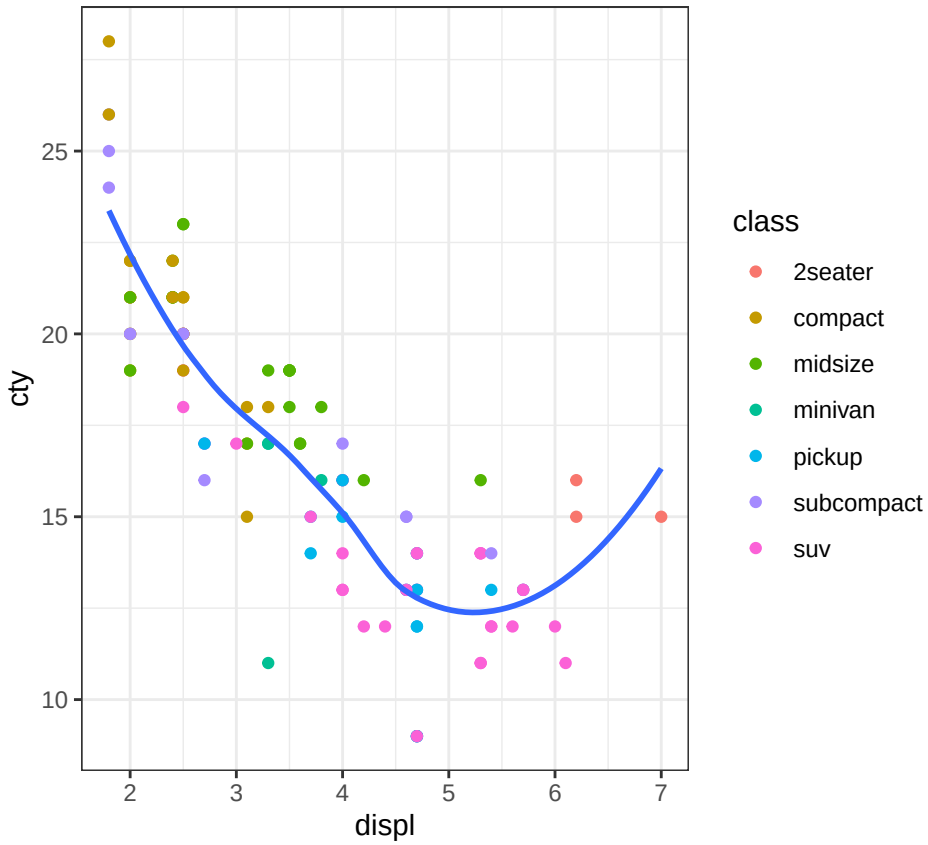
```
## `geom_smooth()` using method = 'loess' and formula 'y ~ x'
```



Exercise 7

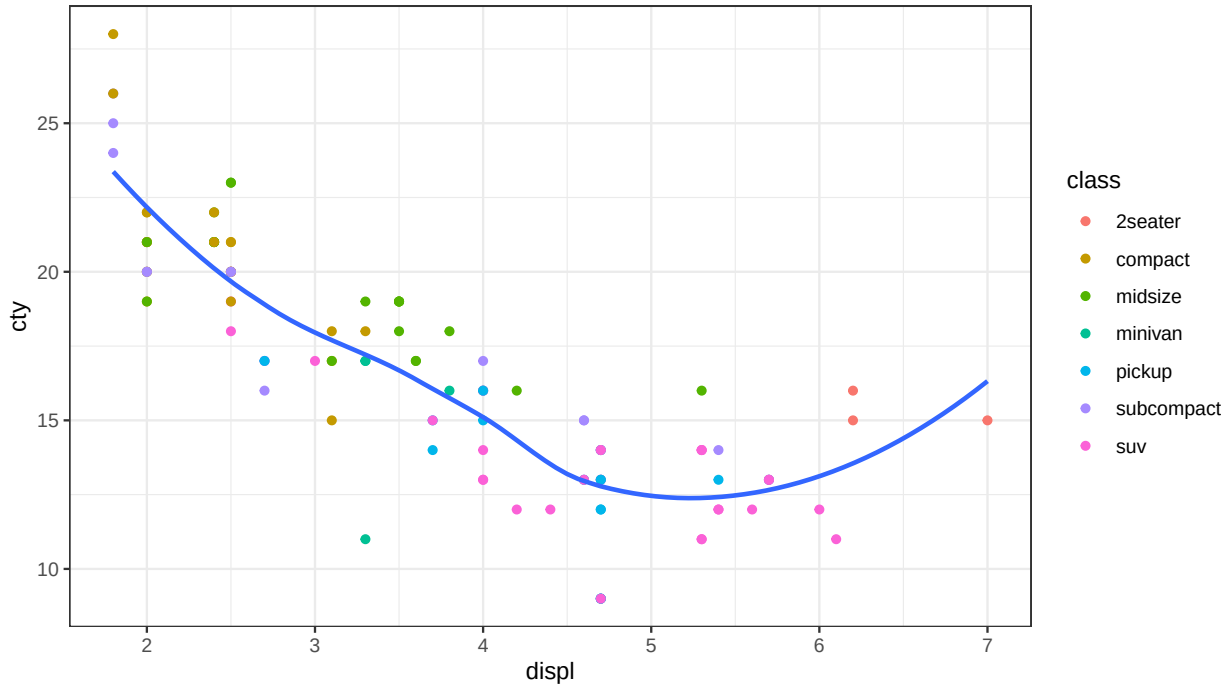
```
year2008 %>%
  ggplot(aes(displ, cty)) +
  geom_point(aes(color = class)) +
  geom_smooth(se = FALSE) +
  theme_bw() -> plot3

plot3
```

```
## `geom_smooth()` using method = 'loess' and formula 'y ~ x'
```




```
year2008 %>%
  ggplot(aes(displ, cty)) +
  geom_point(aes(color = class)) +
  geom_smooth(se = FALSE) +
  theme_bw() -> plot4

plot4
```

```
## `geom_smooth()` using method = 'loess' and formula 'y ~ x'
```




```
year2008 %>%
  ggplot(aes(displ, cty)) +
  geom_point(aes(color = class)) +
  geom_smooth(se = FALSE) +
  theme_bw() +
  labs(caption = "fig.align = 5") -> plot5

plot5
```

```
## `geom_smooth()` using method = 'loess' and formula 'y ~ x'
```

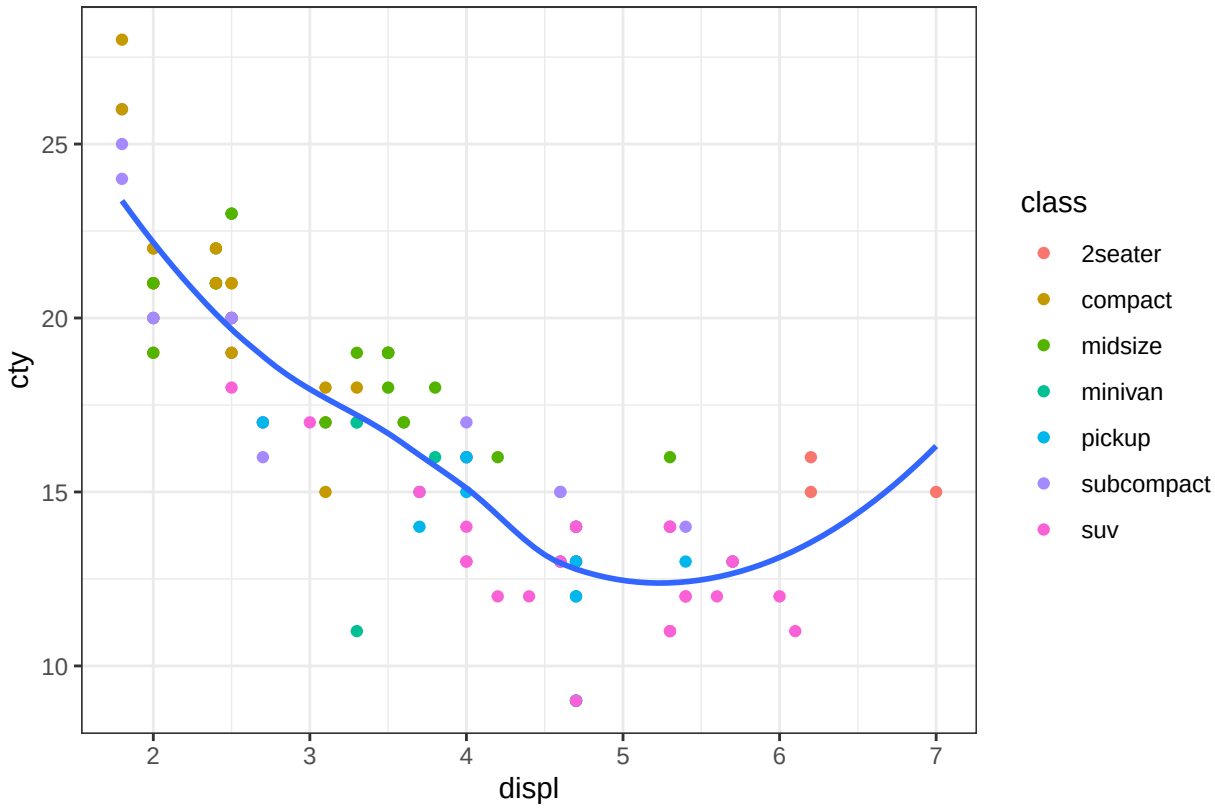


fig.align = 5

```
plot5 +
  ggsave("Exercise 7.jpg")
```

```
## Saving 6.5 x 4.5 in image
```

```
## `geom_smooth()` using method = 'loess' and formula 'y ~ x'
## `geom_smooth()` using method = 'loess' and formula 'y ~ x'
```

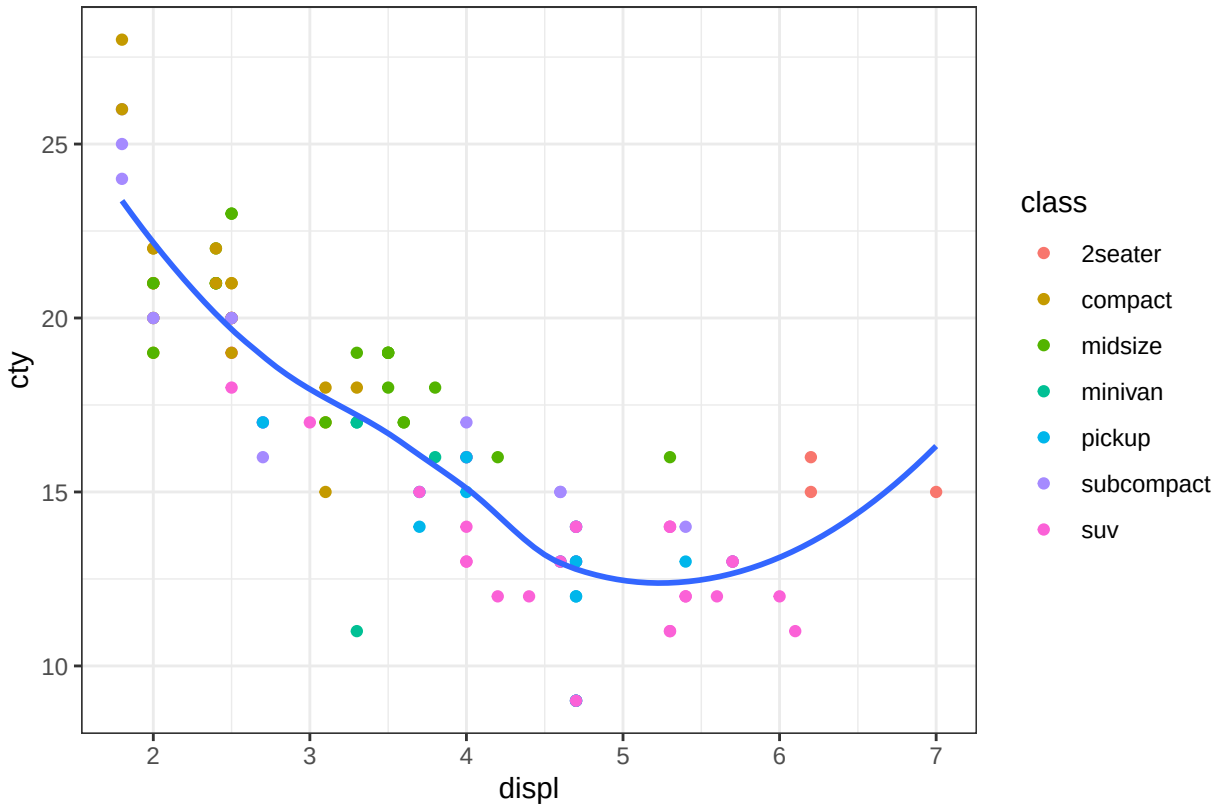

cty
displ
25
20
15
10
2
3
4
5
6
7
class
2seater
compact
midsize
minivan
pickup
subcompact
suv

fig.align = 5