Assignment_2Exercise

Xinyi Wang

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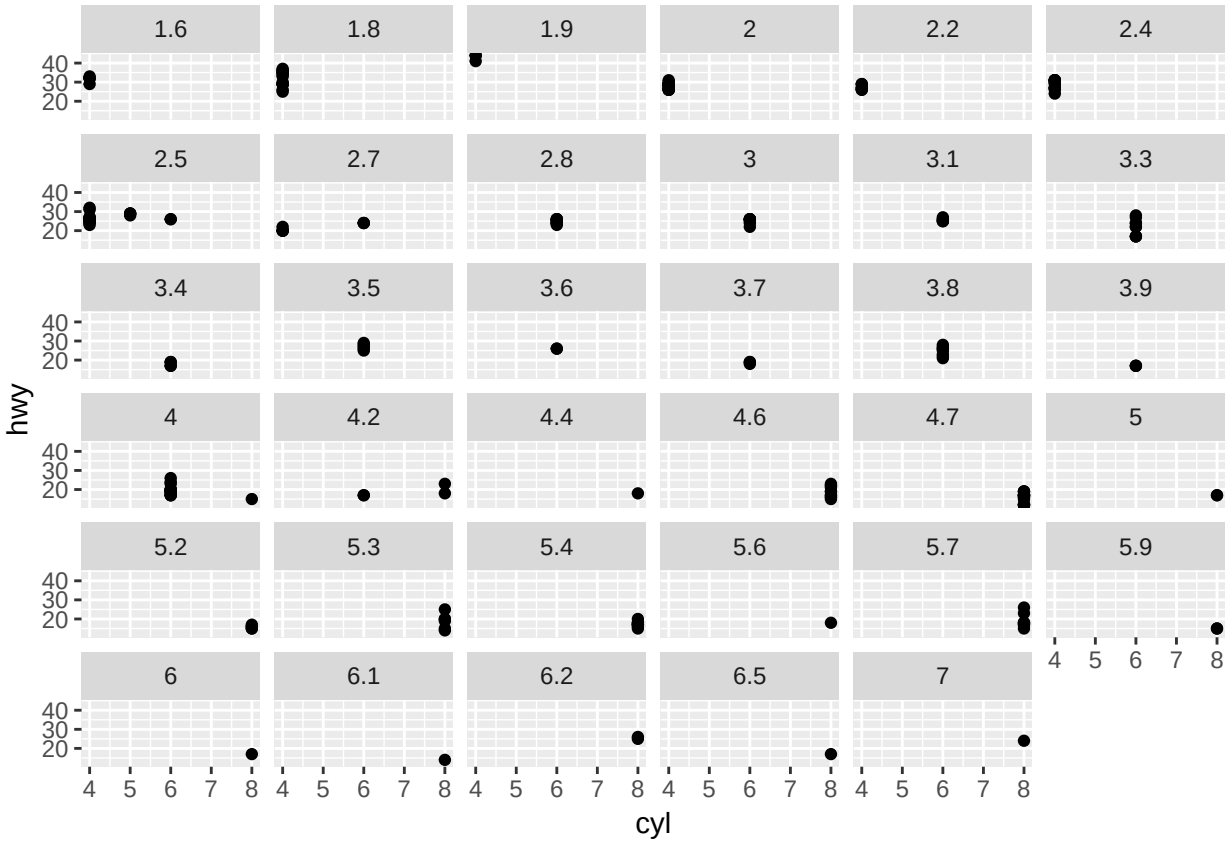
1.What happens if you facet on a continuous variable?

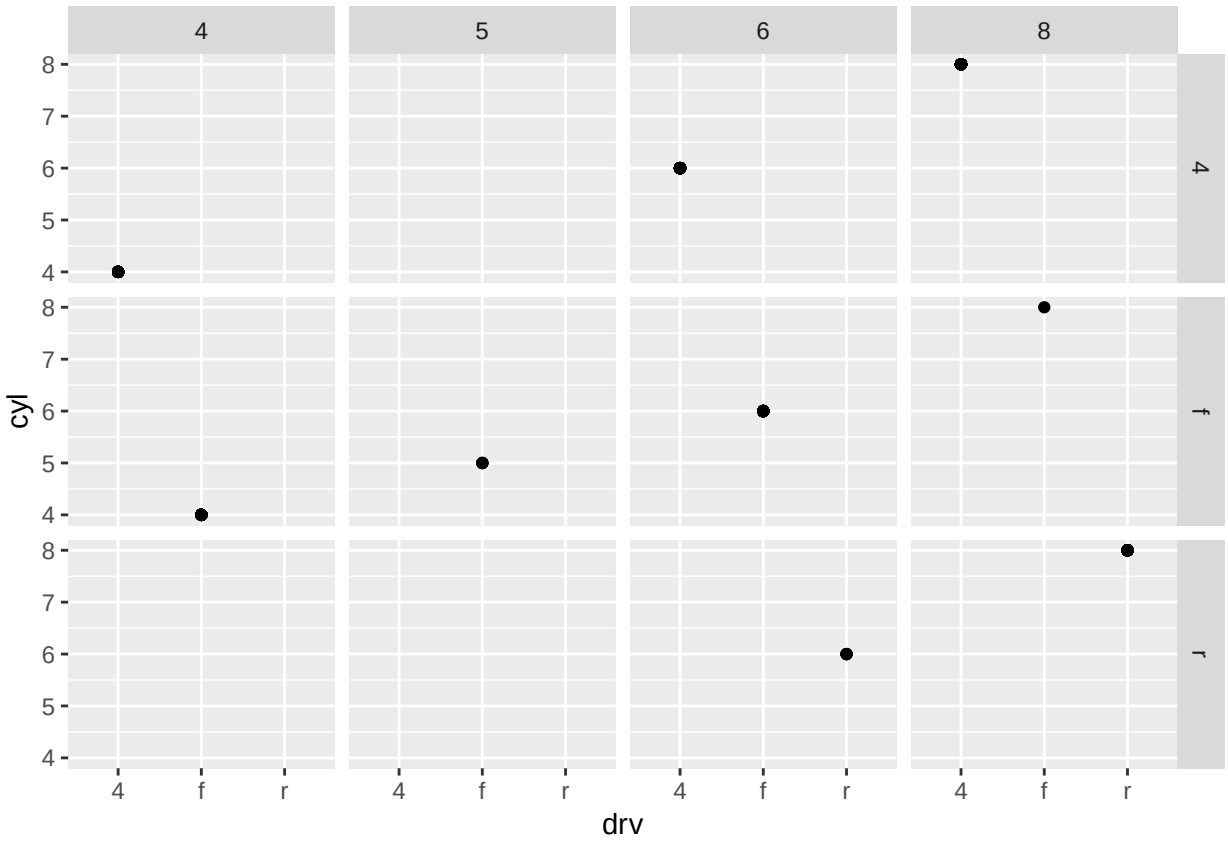
```
ggplot(data = mpg) +
  geom_point(mapping = aes(x = cyl, y = hwy)) +
  facet_wrap(~ displ)
```



You'll get one facet for each unique value of the variable.

2.What do the empty cells in plot with facet_grid(drv ~ cyl) mean? How do they relate to this plot?

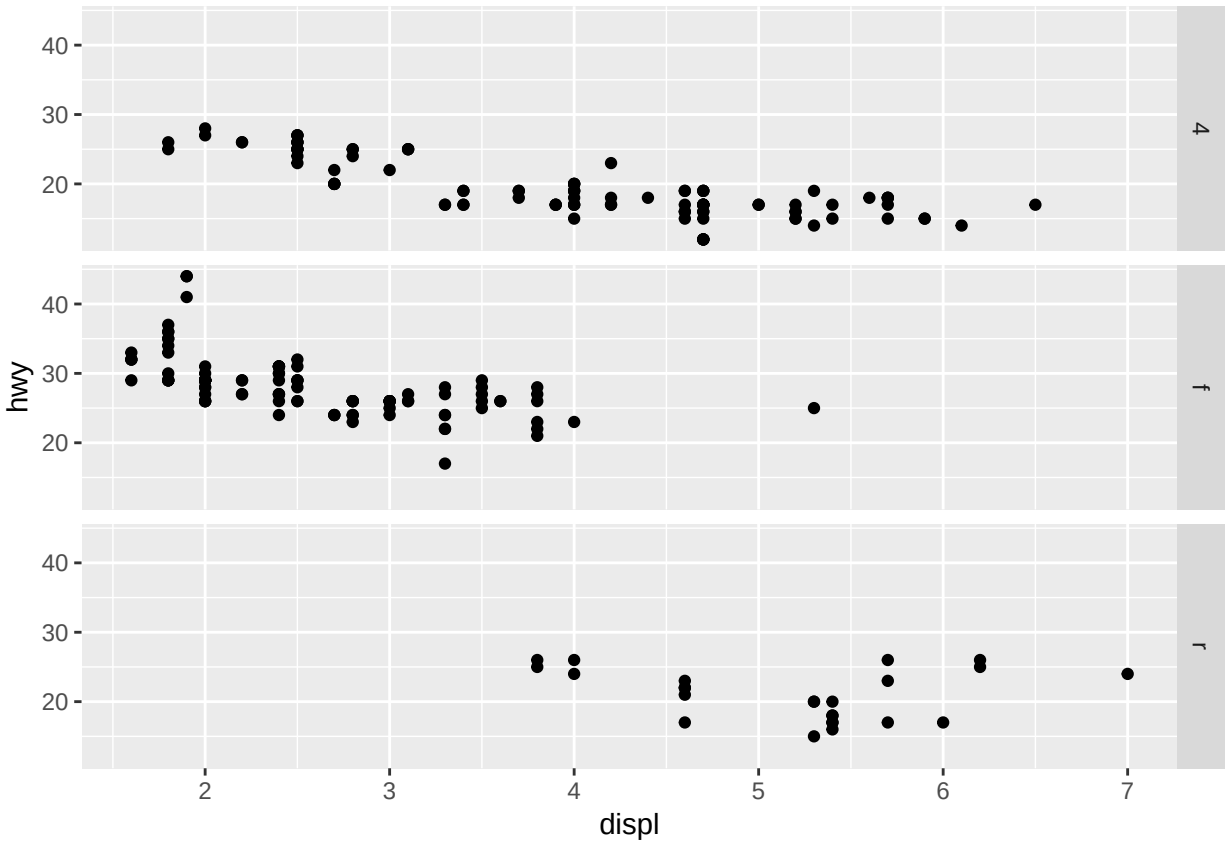
```
ggplot(data = mpg) +
  geom_point(mapping = aes(x = drv, y = cyl)) +
  facet_grid(drv ~ cyl)
```



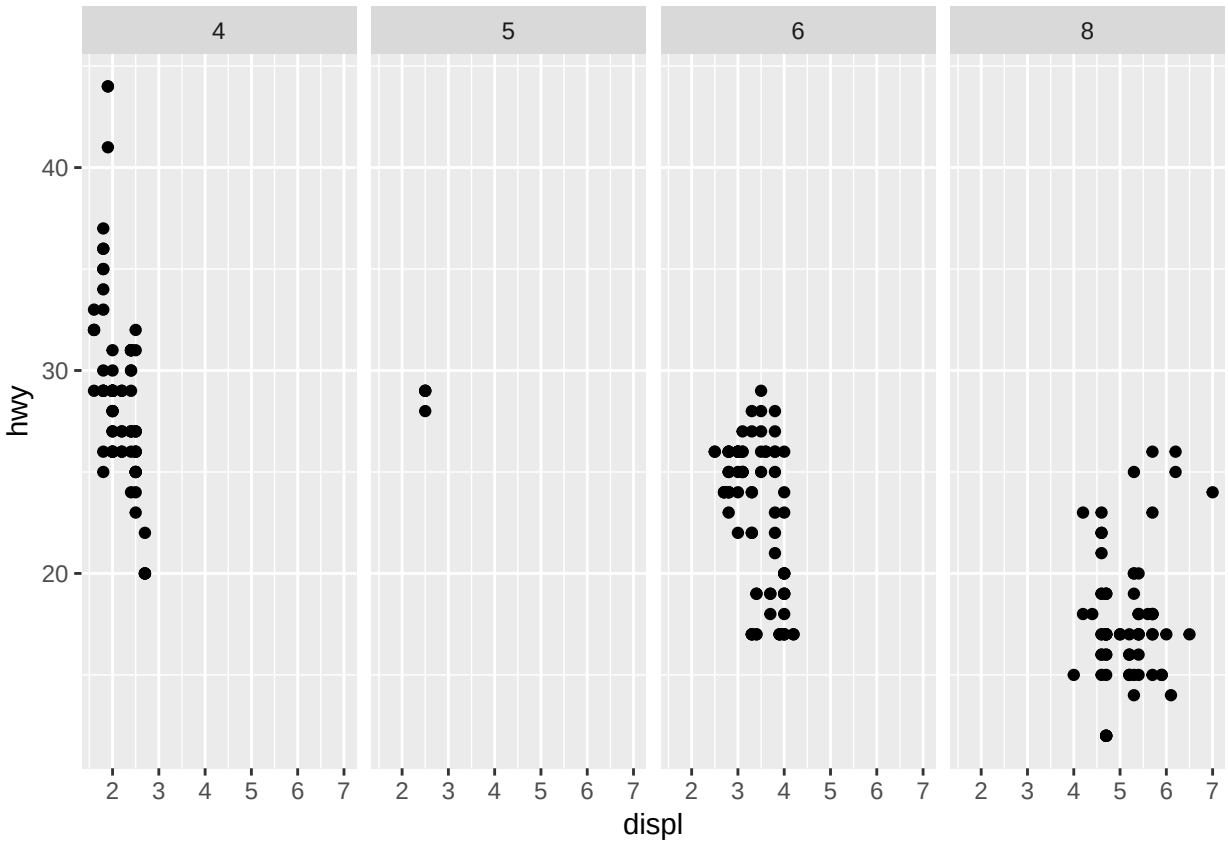
Empty cells in facet_grid imply that there were no rows with that combination of values in the original dataset. In this plot, rear wheel drive(r) with 4 or 5 cylinder(cyl) is missing, and 4 wheel drive(4) with 5 cylinder(cyl) is missing.

3.What plots does the following code make? What does . do?

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



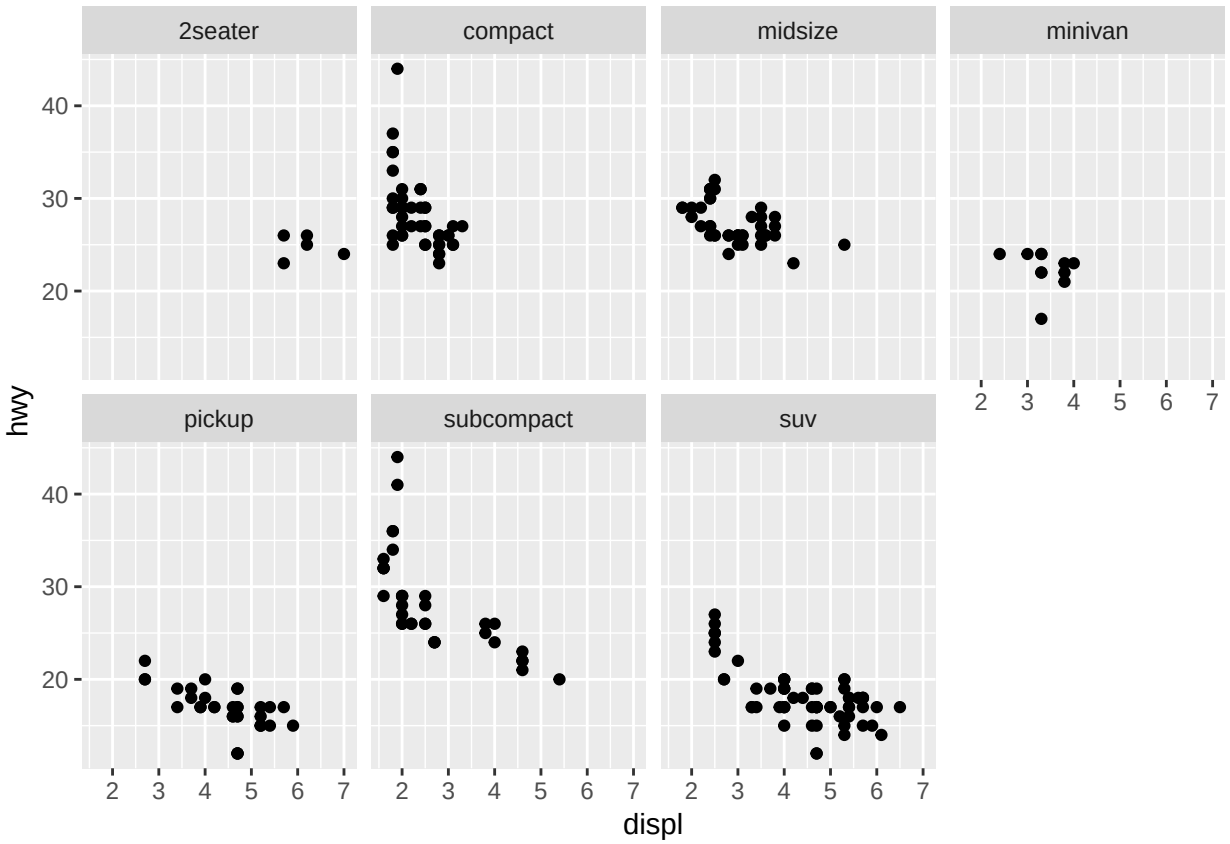

```
ggplot(data = mpg) +
  geom_point(mapping = aes(x = displ, y = hwy)) +
  facet_grid(. ~ cyl)
```



. acts a placeholder for no variable so that we can have a facet in only one dimension.

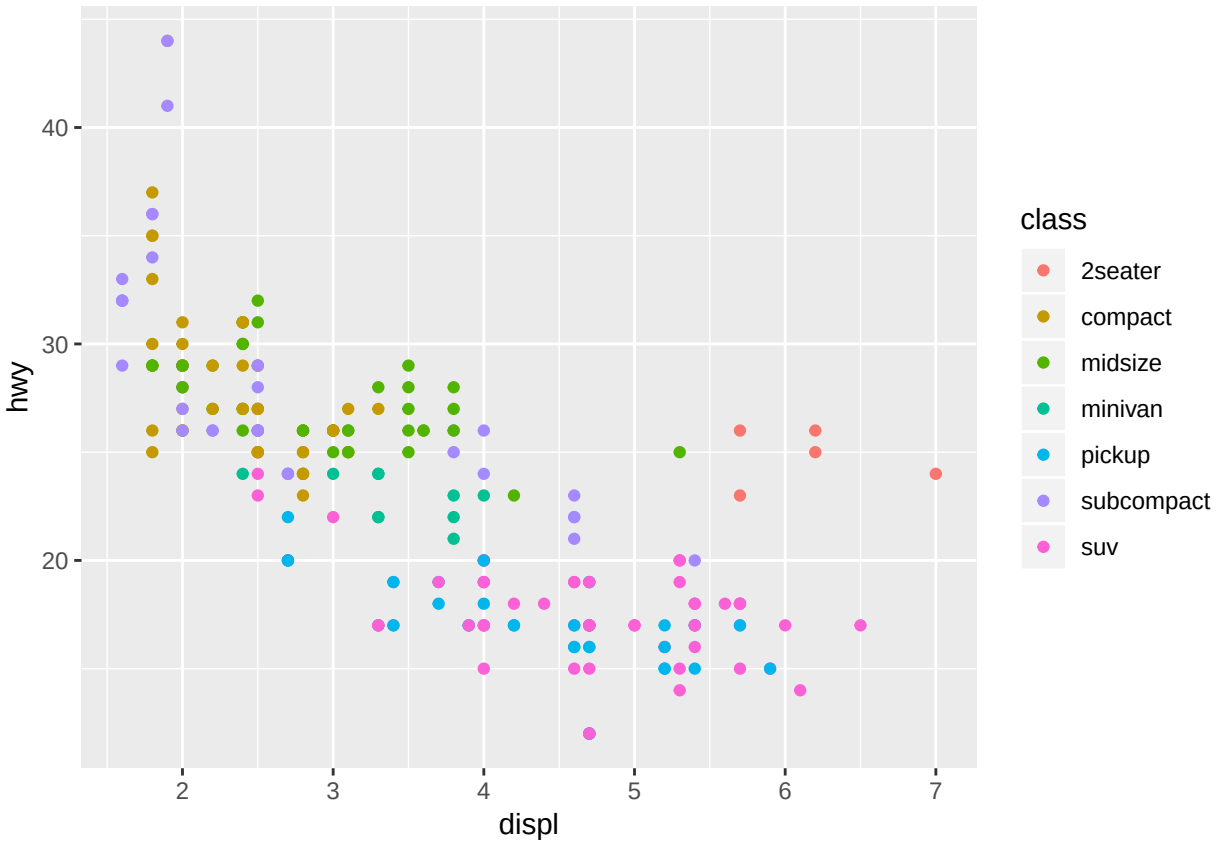
4.Take the first faceted plot in this section:

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



What are the advantages to using faceting instead of the colour aesthetic? What are the disadvantages? How might the balance change if you had a larger dataset?

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



Advantage of using faceting: Easier to examine the indivual classes. Disadvantage of using faceting: Easier to see how the classes are clustered overall. With larger datasets it's more likely to use colour asethetic to see the overall clustering instead of the individual point clouds.