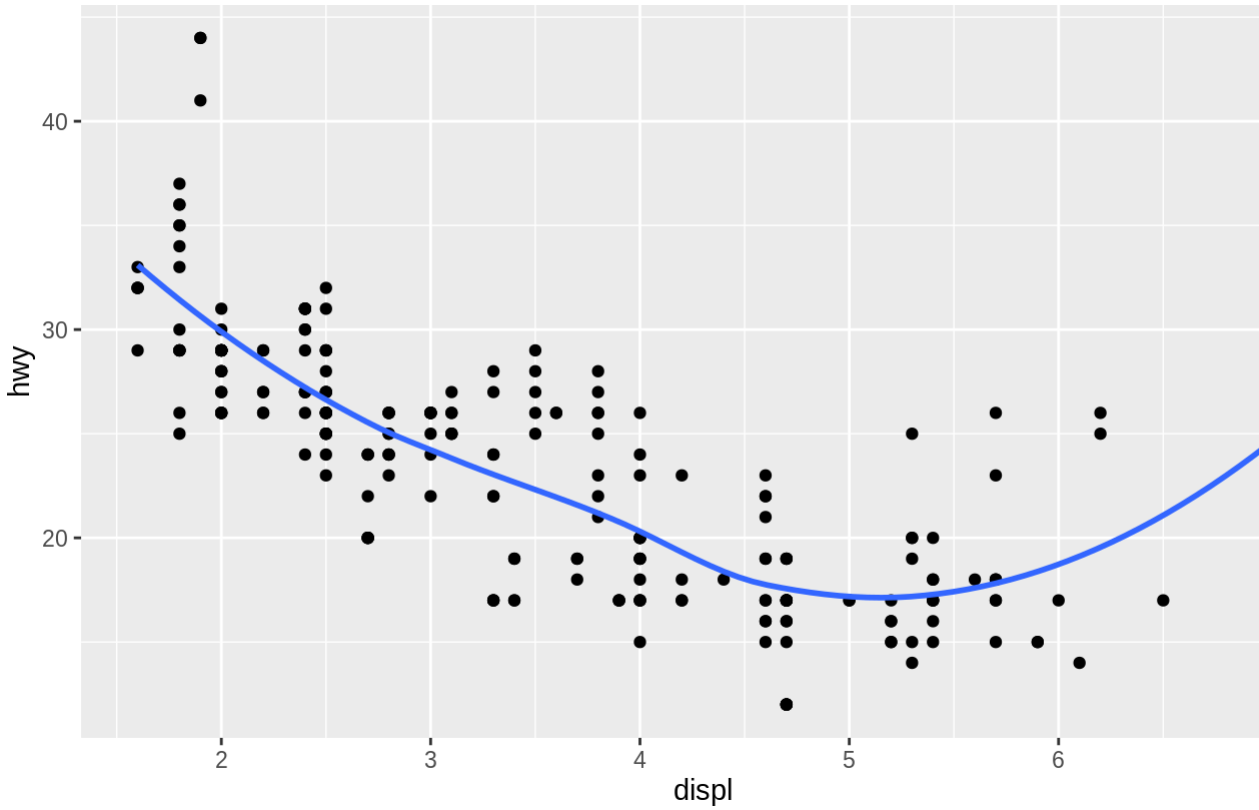
Data Visualization Lab

Assignment Instructions In this assignment you will recreate five graphs using ggplot2 and the mpg dataset. You will need to run the code block for each question to view the graph you will need to reproduce.

After completing the assignment, knit your document, and download both your .Rmd and knitted output. Upload your files for peer review.

For each response, include comments detailing your response and what each argument in the ggplot function does.

```
## RUN TO VIEW THE GRAPH YOU WILL NEED TO REPRODUCE

knitr::include_graphics("images/question-1.png")
```

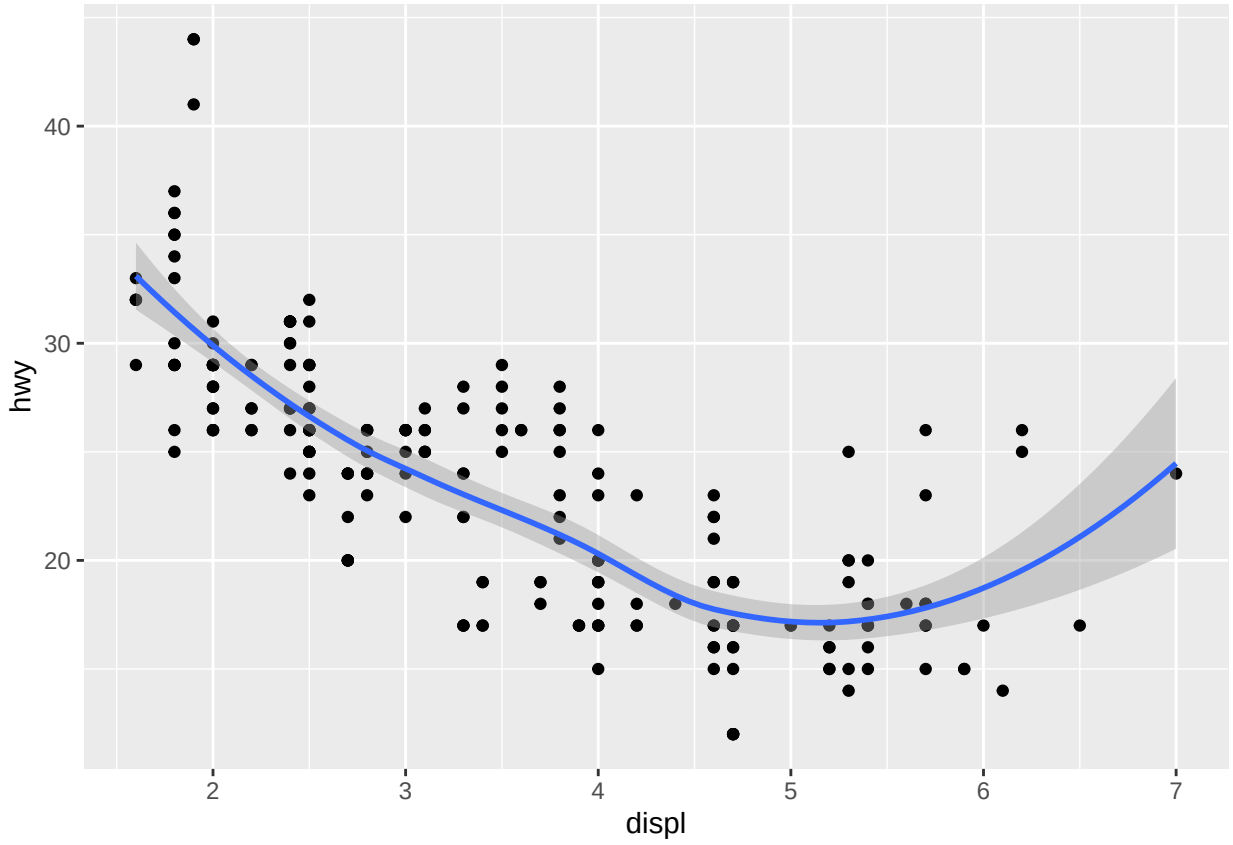


Question 1.

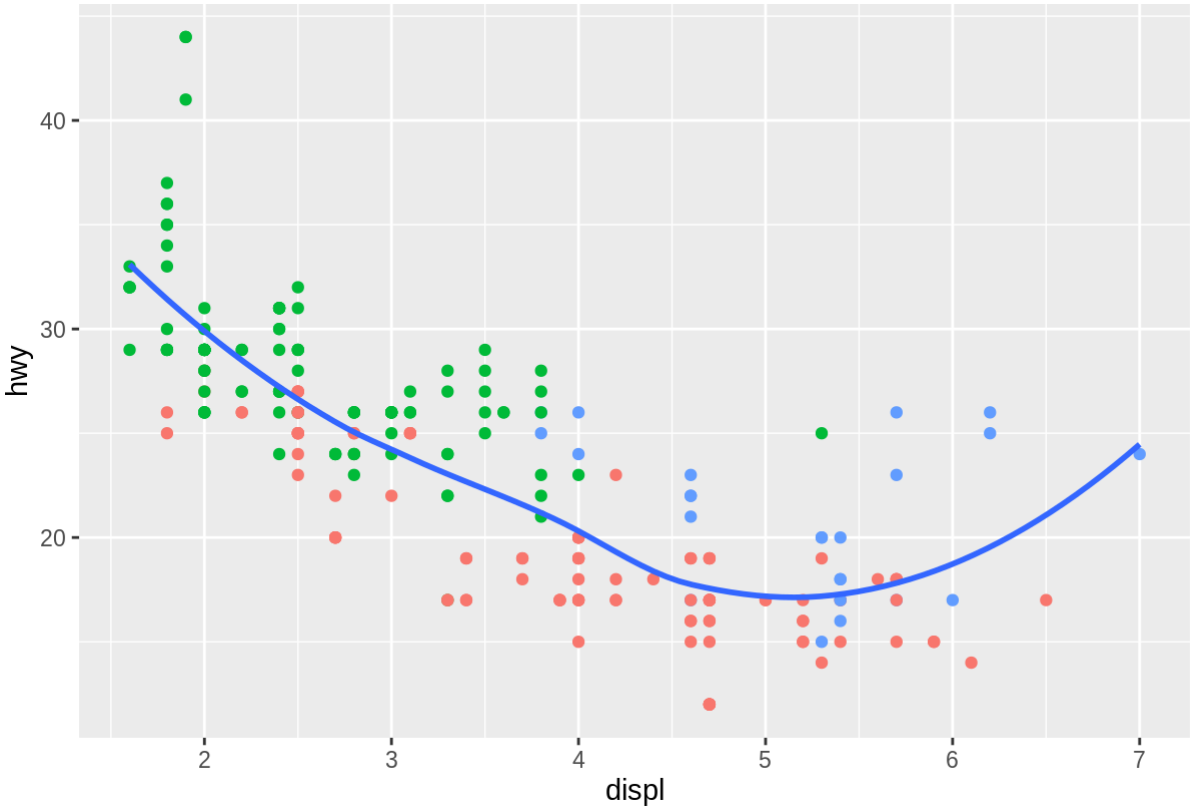
```
library(ggplot2)

ggplot(data = mpg) +
```

```
  geom_point(mapping = aes(x = displ, y = hwy)) +
  geom_smooth(mapping = aes(x = displ, y = hwy), method = "loess")
```

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



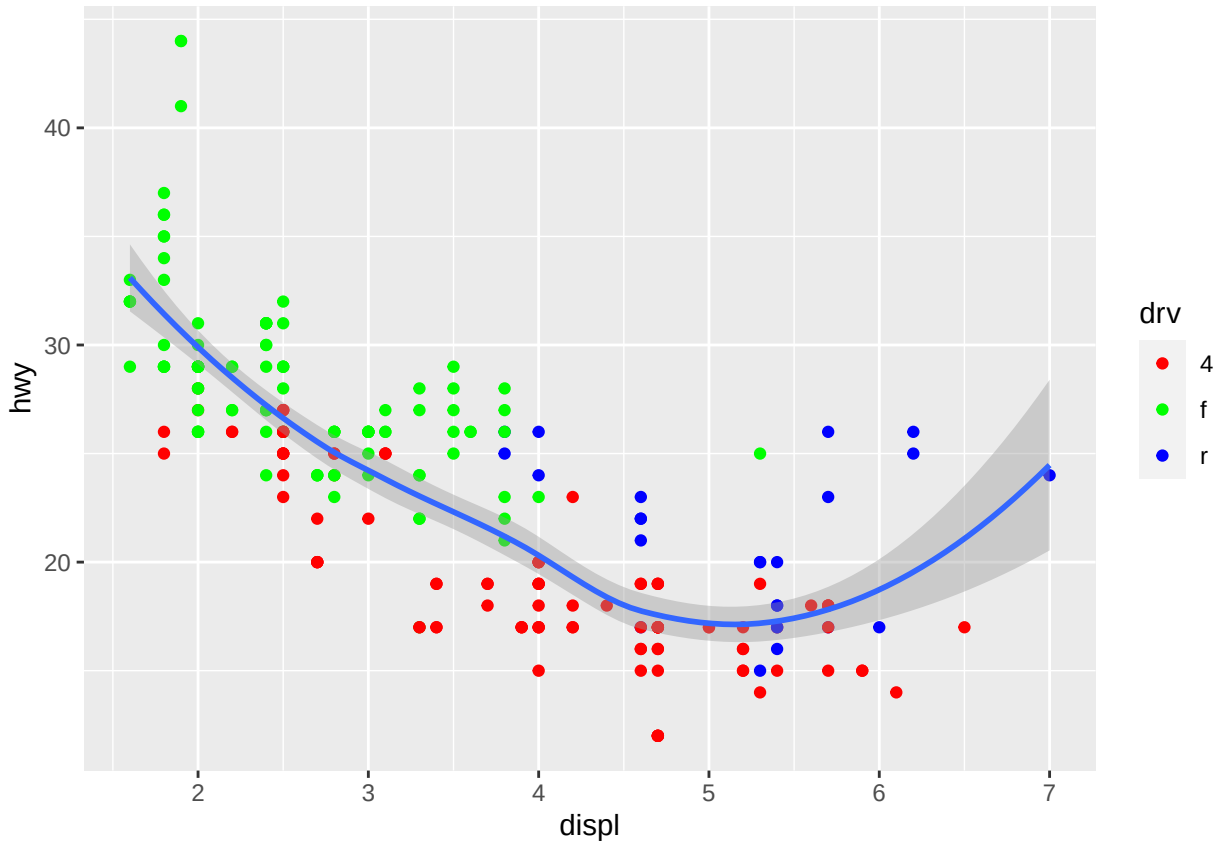

```
## RUN TO VIEW THE GRAPH YOU WILL NEED TO REPRODUCE

knitr::include_graphics("images/question-2.png")
```



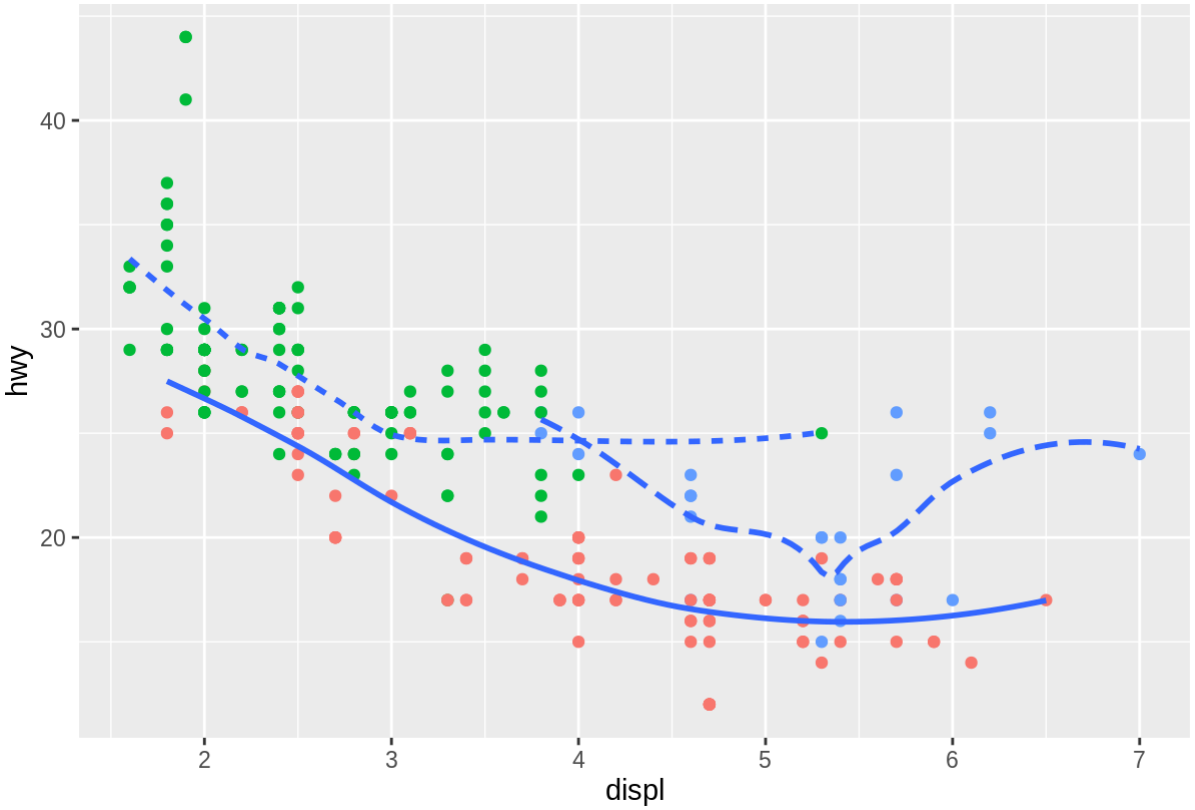
Question 2.

```
ggplot(data = mpg) +
  geom_point(mapping = aes(x = displ, y = hwy, color = drv)) +
  scale_color_manual(values = c("4" = "red", "f" = "green", "r" = "blue")) +
  geom_smooth(mapping = aes(x = displ, y = hwy), method = "loess")
```

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



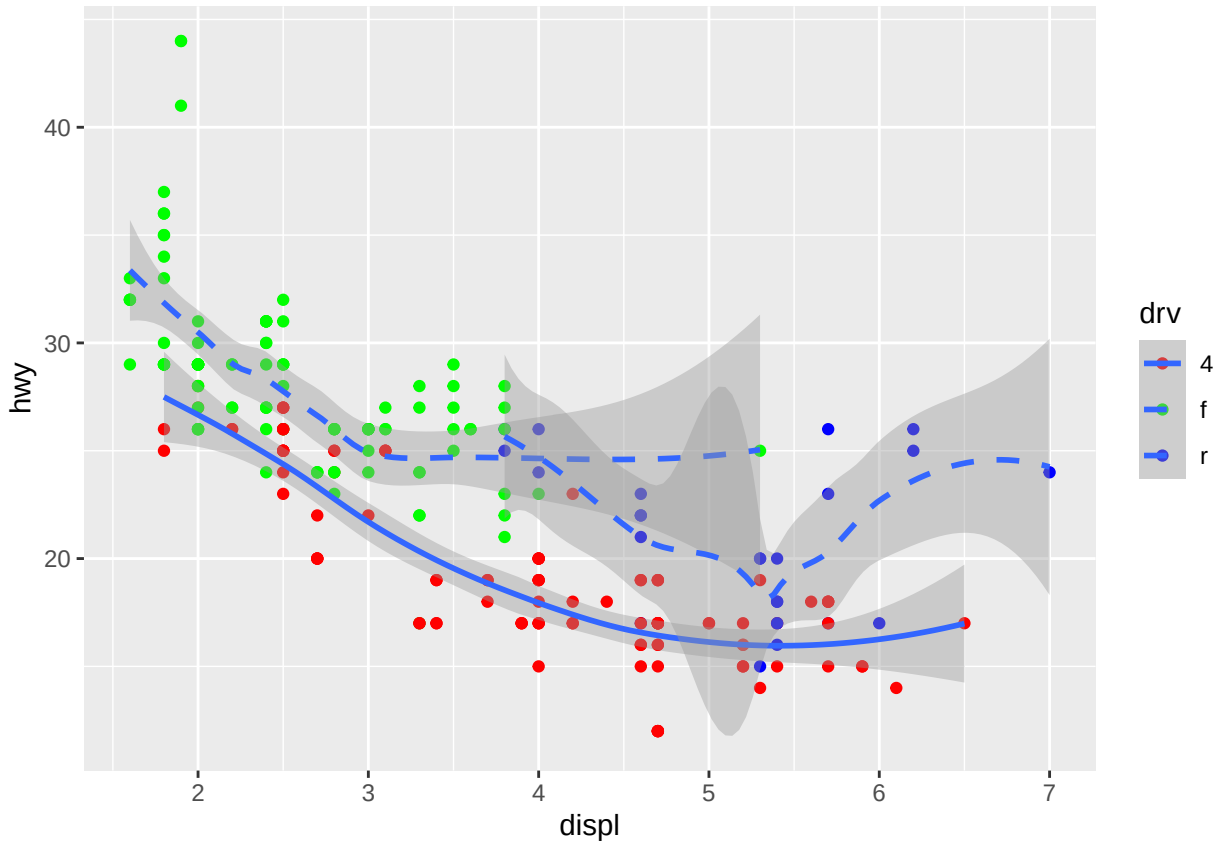

```
## RUN TO VIEW THE GRAPH YOU WILL NEED TO REPRODUCE

knitr::include_graphics("images/question-3.png")
```



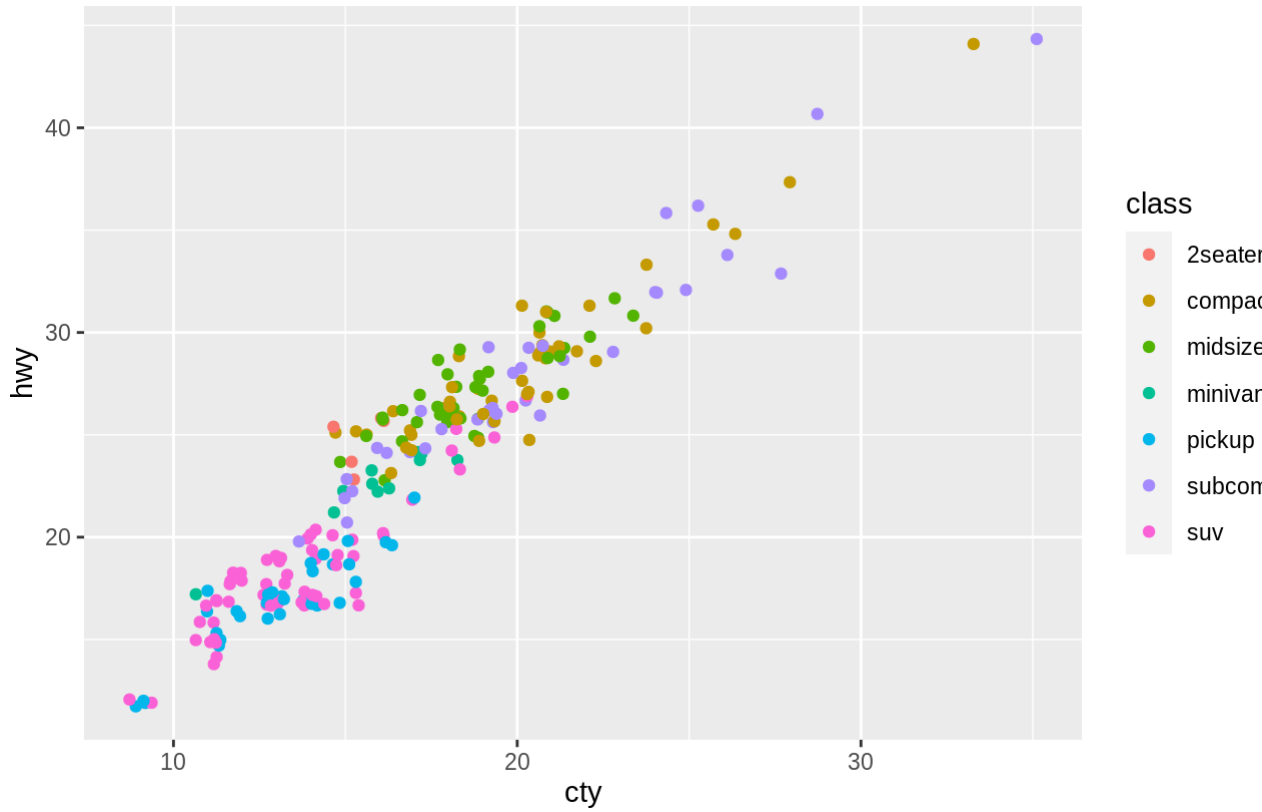
Question 3.

```
ggplot(data = mpg) +
  geom_point(mapping = aes(x = displ, y = hwy, color = drv)) +
  scale_color_manual(values = c("4" = "red", "f" = "green", "r" = "blue")) +
  geom_smooth(mapping = aes(x = displ, y = hwy, linetype = drv), method = "loess") +
  scale_linetype_manual(values = c("4" = "solid", "f" = "dashed", "r" = "dashed")) +
  theme(panel.border = element_blank())
```

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

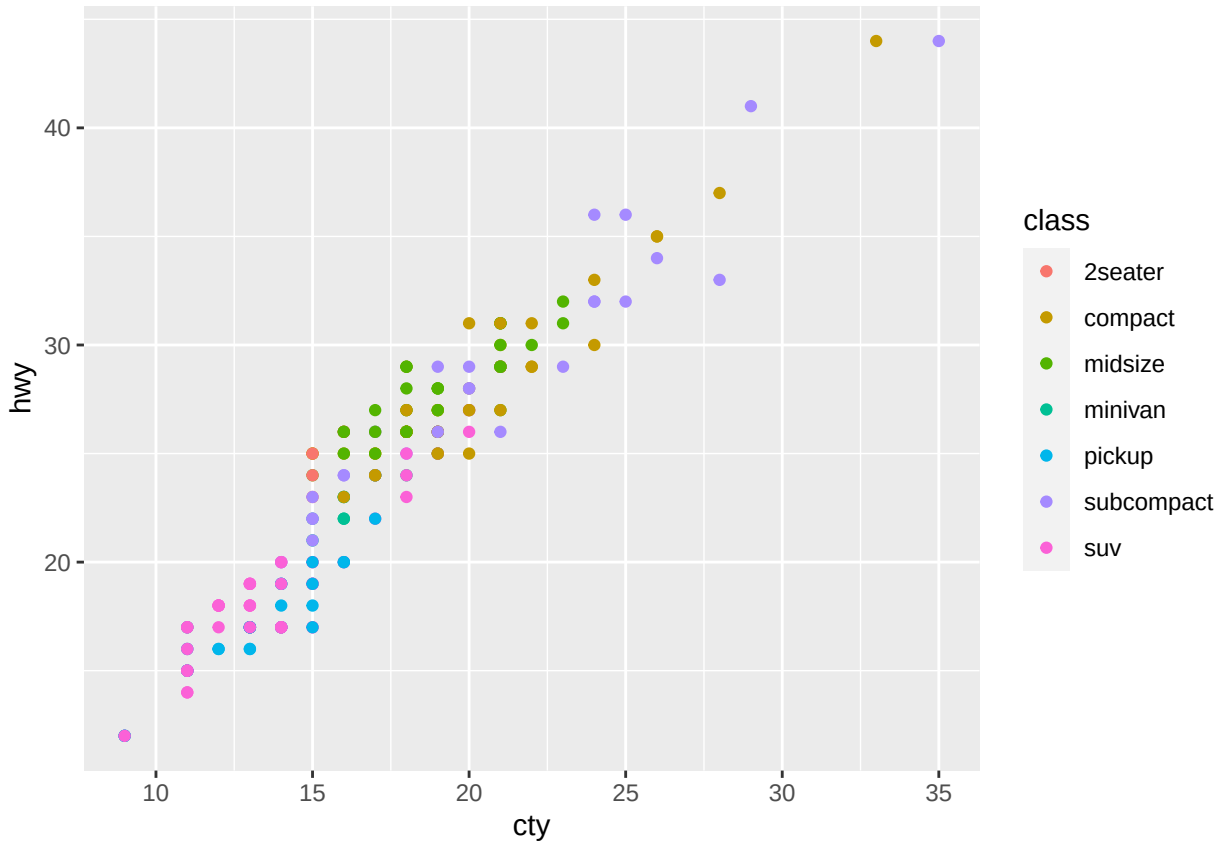



```
## RUN TO VIEW THE GRAPH YOU WILL NEED TO REPRODUCE

knitr::include_graphics("images/question-4.png")
```

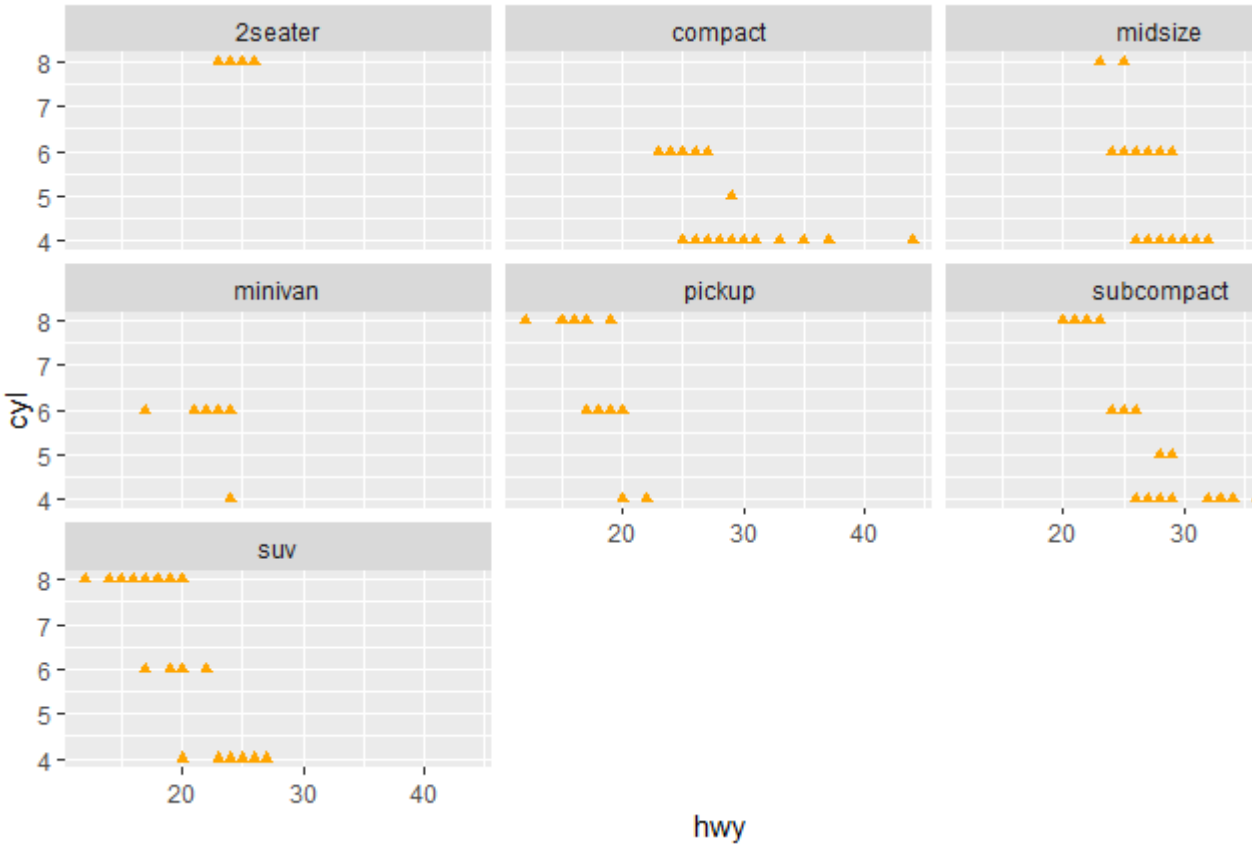


Question 4.

```
ggplot(mpg, aes(cty, hwy, colour = class)) +
  geom_point()
```

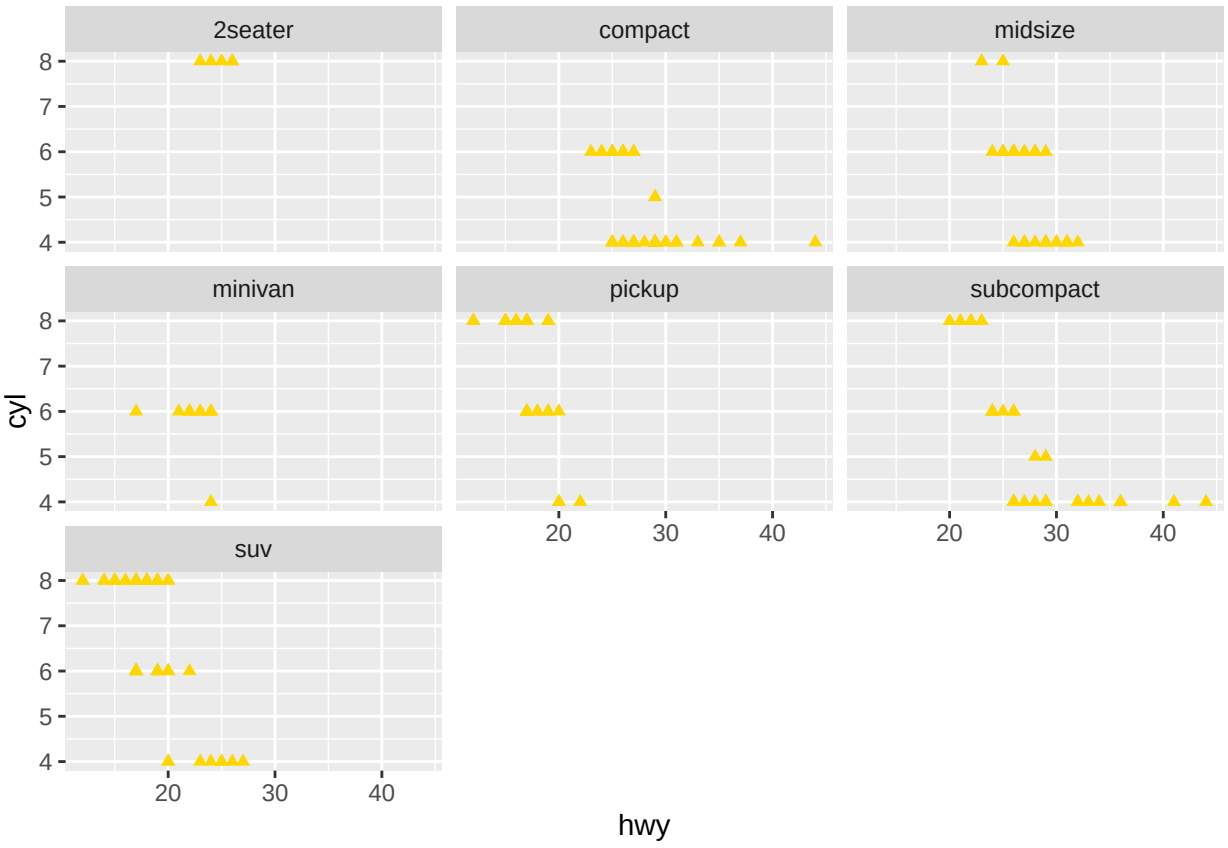



```
## RUN TO VIEW THE GRAPH YOU WILL NEED TO REPRODUCE

knitr::include_graphics("images/question-5.png")
```



Question 5.

```
##Q5
ggplot( data = mpg, aes(x= hwy, y= cyl))+

  ##set shape and colour of points to triangle and gold respectively
  geom_point(shape= 'triangle', color= 'gold')+

  #categorize plots into classes of drv using the same scale
  facet_wrap(~class)
```


2seater
compact
midsize
minivan
pickup
subcompact
suv
cyl
hwy
8
7
6
5
4
20
30
40